

State of California  
The Resources Agency

DEPARTMENT OF WATER RESOURCES  
Division of Operations and Maintenance

# STATE WATER PROJECT OPERATIONS DATA

For the month of:  
**December 1996**

**Pete Wilson**  
Governor  
State of California

**Douglas P. Wheeler**  
Secretary for Resources  
The Resources Agency

**David N. Kennedy**  
Director  
Department of Water Resources

State of California  
Resources Agency

**Department of Water Resources  
Division of Operations and Maintenance**

**State Water Project  
Operations Data**

for the Month of December 1996

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## **MONTHLY HIGHLIGHTS**

The following highlights are activities or actions that impacted State Water Project operations during the month of December 1996.

Total December precipitation exceeded 28 inches, well above average with over 12 inches falling in Northern California in the first two weeks of December. This was the second wettest December of record, exceeded only by the 30.8 inches in December 1955. Very heavy rains occurred from December 26 through January 2, amounting to about 40 percent of the annual average. Storms were warm with moist winds from the southwest blowing over the Sierra. The breadth of the storm was unprecedented, producing 3-day record flood volumes on major rivers from Shasta Dam to the southern Sierra. On the Sacramento River, overflow into the Sutter and Yolo Bypass systems occurred during the second week but river levels were only moderate. The sheer volume of runoff exceeded the flood control capacity of Don Pedro and Millerton Reservoirs resulting in large spills of excess water. Snow levels were relatively high resulting in more direct rain runoff than usual which pushed most of the larger foothill reservoirs into the flood control mode causing them to discharge maximum downstream channel capacity flows. Runoff during December was about 300 percent of average. Seasonal runoff since October 1 was 220 percent of average, compared to 70 percent last year.

Increased Lake Oroville inflows drove lake storage into flood reservation space for six days in mid-December and again at the end of the month to 2.9 MAF compared to 2.7 MAF at this time last year. Daily reservoir average inflow peaked at just over 171,000 cfs at Oroville on December 31. Daily average releases peaked at 77,000 cfs on the same day. Feather River releases for the month totaled nearly 1.1 MAF. Flood control space requirements prevented higher storage in major multipurpose reservoirs. Total storage in major SWP reservoirs was about 4.6 MAF on December 31, compared with 4.2 MAF this time in 1995. The State's share of San Luis Reservoir storage was about 1.1 MAF, compared with 897,000 AF this time last year. The combined storage in our southern reservoirs was 615,000 AF on December 31 compared with 597,000 AF at this time last year.

On December 2, DWR approved 2.4 MAF of the 3 MAF of requested entitlement water for long-term SWP contractors in 1997. SWP supplies are projected to meet at least 70 percent of most SWP contractor's requests. Interruptible water was made available to SWP contractors on December 2. SWP water deliveries for 1996 through December 31 were 2.4 MAF representing a combination of annual entitlement, carryover, interruptible, and exchange waters. This is 400,000 AF more than delivered during the same period in 1995.

During the week of December 12-16, the SWRCB approved pumping of CVP water at Banks Pumping Plant to facilitate high exports during a juvenile salmon migration study being conducted by USFWS. SWP storage in San Luis was already slightly above its allocated share and delivery requests were less than 2,000 cfs, making capability available at Banks Pumping Plant. During the five days, 46,324 AF was pumped for the CVP most of which was used to fill the federal share of San Luis Reservoir. SWP pumping into San Luis was suspended on December 10 when storage reached the desired goal of 1.12 MAF.

Construction at Vaquero Recreation Area, requiring the lowering of Pyramid Lake, has been completed. Restriction on Pyramid Lake was released on December 8 with the refill beginning December 9. Refill was completed on December 15. Lining repairs on Pools 52, 53, and 55 of the East Branch were completed on December 16 and returned to service during the week of December 17. The Aqueduct had been out of service since October 24.

**Table 1. Antelope Lake**

Daily Operation  
(in acre-feet except as noted)

Capacity: 22,566 ac-ft

**December 1996**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Outflow in CFS							Computed Inflow 1/	
				Regulated Release				Spill	Estimated Evaporation And Seepage 1/	Total Outflow 1/		
				Stream-flow Maint.	Water Supply Contract	Water Right	Total Regulated Release					
Nov 30	4997.59	18,670										
1	4997.60	18,678	8	20	0	0	20	0				
2	4997.58	18,662	-16	20	0	0	20	0				
3	4997.54	18,628	-34	20	0	0	20	0				
4	4997.62	18,695	67	20	0	0	20	0				
5	4997.95	18,972	277	20	0	0	20	0				
6	4998.01	19,022	50	20	0	0	20	0				
7	4998.07	19,073	51	20	0	0	20	0				
8	4998.13	19,124	51	20	0	0	20	0				
9	4998.24	19,217	93	20	0	0	20	0				
10	4998.54	19,472	255	20	0	0	20	0				
11	4998.80	19,696	224	20	0	0	20	0				
12	4999.10	19,955	259	20	0	0	20	0				
13	4999.30	20,129	174	20	0	0	20	0				
14	4999.39	20,207	78	20	0	0	20	0				
15	4999.46	20,269	62	20	0	0	20	0				
16	4999.50	20,304	35	20	0	0	20	0				
17	4999.53	20,330	26	20	0	0	20	0				
18	4999.56	20,356	26	20	0	0	20	0				
19	4999.58	20,370	14	20	0	0	20	0				
20	4999.65	20,435	65	20	0	0	20	0				
21	4999.76	20,532	97	20	0	0	20	0				
22	4999.83	20,594	62	20	0	0	20	0				
23	4999.84	20,603	9	20	0	0	20	0				
24	4999.86	20,621	18	20	0	0	20	0				
25	4999.88	20,638	17	20	0	0	20	0				
26	5000.02	20,770	132	20	0	0	20	0				
27	5000.15	20,885	115	20	0	0	20	0				
28	5000.28	21,001	116	20	0	0	20	0				
29	5000.63	21,314	313	20	0	0	20	0				
30	5001.52	22,030	716	20	0	0	20	0				
31	5003.46	23,943	1,913	20	0	0	20	118				
TOTAL CFS-DAYS				---	620	0	0	620	118	48	786	3,445
TOTAL AC-FT.				5,273	1,230	0	0	1,230	234	96	1,560	6,833

1/ Values not available on a daily basis.

**Table 2. Frenchman Lake**

Daily Operation

(in acre-feet except as noted)

Capacity: 55,477 ac-ft

**December 1996**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Outflow in CFS							Computed Inflow	
				Regulated Release				Spill	Estimated Evaporation And Seepage 1/	Total Outflow 1/		
				Stream-flow Maint.	Water Supply Contract	Water Right	Total Regulated Release					
Nov 30	5579.53	43,077										
1	5579.54	43,091	14	2	0	0	2	0				
2	5579.51	43,050	-41	2	0	0	2	0				
3	5579.54	43,091	41	2	0	0	2	0				
4	5579.59	43,159	68	2	0	0	2	0				
5	5579.74	43,362	203	2	0	0	2	0				
6	5579.76	43,389	27	2	0	0	2	0				
7	5579.76	43,389	0	2	0	0	2	0				
8	5579.79	43,430	41	2	0	0	2	0				
9	5579.82	43,471	41	2	0	0	2	0				
10	5580.02	43,743	272	2	0	0	2	0				
11	5580.17	43,948	205	2	0	0	2	0				
12	5580.33	44,168	220	2	0	0	2	0				
13	5580.42	44,292	124	2	0	0	2	0				
14	5580.46	44,347	55	2	0	0	2	0				
15	5580.50	44,402	55	2	0	0	2	0				
16	5580.53	44,443	41	2	0	0	2	0				
17	5580.54	44,457	14	2	0	0	2	0				
18	5580.55	44,471	14	2	0	0	2	0				
19	5580.56	44,484	13	2	0	0	2	0				
20	5580.62	44,567	83	2	0	0	2	0				
21	5580.76	44,761	194	2	0	0	2	0				
22	5580.82	44,800	39	2	0	0	2	0				
23	5580.83	44,858	58	2	0	0	2	0				
24	5580.84	44,872	14	2	0	0	2	0				
25	5580.85	44,885	13	2	0	0	2	0				
26	5580.98	45,066	181	2	0	0	2	0				
27	5581.08	45,205	139	2	0	0	2	0				
28	5581.14	45,289	84	2	0	0	2	0				
29	5581.48	45,764	475	2	0	0	2	0				
30	5581.94	46,413	649	2	0	0	2	0				
31	5583.04	47,985	1,572	2	0	0	2	0				
TOTAL CFS-DAYS				---	62	0	0	62	0	76	138	2,613
TOTAL AC-FT.				4,908	123	0	0	123	0	151	274	5,182

1/ Values not available on a daily basis.

**Table 3. Lake Davis**

Daily Operation  
(in acre-feet except as noted)

Capacity: 84,371 ac-ft

**December 1996**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Outflow in CFS							Computed Inflow	
				Regulated Release				Spill	Estimated Evaporation And Seepage 1/	Total Outflow 1/		
				Stream-flow Maint.	Water Supply Contract 1/	Water Right	Total Regulated Release 1/					
Nov 30	5770.51	67,329										
1	5770.55	67,471	142	28		0		0				
2	5770.52	67,364	-107	28		0		0				
3	5770.51	67,329	-35	28		0		0				
4	5770.52	67,364	35	28		0		0				
5	5770.69	67,972	608	28		0		0				
6	5770.71	68,044	72	28		0		0				
7	5770.71	68,044	0	28		0		0				
8	5770.72	68,080	36	28		0		0				
9	5770.73	68,115	35	28		0		0				
10	5770.74	68,152	37	28		0		0				
11	5771.10	69,451	1,299	28		0		0				
12	5771.22	69,887	436	28		0		0				
13	5771.30	70,179	292	60		0		0				
14	5771.24	69,960	-219	112		0		0				
15	5771.19	69,778	-182	112		0		0				
16	5771.15	69,633	-145	112		0		0				
17	5771.06	69,306	-327	112		0		0				
18	5771.00	69,089	-217	112		0		0				
19	5770.92	68,800	-289	118		0		0				
20	5770.88	68,656	-144	125		0		0				
21	5770.94	68,872	216	125		0		0				
22	5770.97	68,981	109	125		0		0				
23	5770.92	68,800	-181	125		0		0				
24	5770.81	68,404	-396	139		0		0				
25	5770.74	68,152	-252	150		0		0				
26	5770.79	68,332	180	150		0		0				
27	5770.80	68,368	36	150		0		0				
28	5770.70	68,008	-360	181		0		0				
29	5770.76	68,224	216	205		0		0				
30	5771.19	69,778	1,554	205		0		0				
31	5771.95	72,572	2,794	207		0		0				
TOTAL CFS-DAYS				-- -	2,961	0	0	2,961	0	200	3,161	5,804
TOTAL AC-FT.				5,243	5,873	0	0	5,873	0	396	6,269	11,512

1/ Values not available on a daily basis.

**Table 4. Lake Oroville**

Daily Operation

(in acre-feet except as noted)

Capacity: 3,537,580 ac-ft

**December 1996**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Outflow						Inflow		
				Hyatt Powerplant Generation 1/	Palermo Canal	Spillway Leakage 2/	Evaporation 3/	Spill	Total Outflow	Hyatt Powerplant Pumpback	Computed Inflow 4/	
Nov 30	842.96	2,715,028										
1	843.57	2,723,026	7,998	56	6	1	10	0	73	0	8,071	
2	843.21	2,718,304	-4,722	10,434	6	1	73	0	10,514	0	5,792	
3	842.70	2,711,623	-6,681	13,330	6	1	36	0	13,373	0	6,692	
4	842.33	2,706,784	-4,839	11,994	6	1	27	0	12,028	0	7,189	
5	844.20	2,731,305	24,521	12,905	6	1	18	0	12,930	0	37,451	
6	844.73	2,738,282	6,977	14,036	6	1	0	0	14,043	0	21,020	
7	845.70	2,751,086	12,804	4,233	6	1	18	0	4,258	507	16,555	
8	846.78	2,765,390	14,304	4,305	6	1	18	0	4,330	1,488	17,146	
9	848.23	2,784,677	19,287	17,166	6	1	9	0	17,182	0	36,469	
10	853.20	2,851,500	66,823	21,623	6	1	0	0	21,630	864	87,589	
11	854.96	2,875,432	23,932	29,323	6	0	19	16,707	46,055	0	69,987	
12	855.47	2,882,393	6,961	29,536	6	0	104	24,101	53,747	0	60,708	
13	855.06	2,876,796	-5,597	28,810	6	0	0	26,116	54,932	0	49,335	
14	853.41	2,854,348	-22,448	29,376	6	0	57	26,116	55,555	0	33,107	
15	851.14	2,823,668	-30,680	29,674	6	0	112	25,888	55,680	0	25,000	
16	849.36	2,799,772	-23,896	29,730	6	0	28	14,926	44,690	0	20,794	
17	848.41	2,787,078	-12,694	29,529	6	120	65	0	29,720	0	17,026	
18	847.20	2,770,967	-16,111	29,639	6	120	221	0	29,986	0	13,875	
19	845.89	2,753,598	-17,369	29,676	6	120	9	0	29,811	0	12,442	
20	844.78	2,738,941	-14,657	29,857	6	165	9	0	30,037	0	15,380	
21	843.73	2,725,127	-13,814	29,543	6	120	18	0	29,687	0	15,873	
22	842.68	2,711,361	-13,766	29,603	6	120	0	0	29,729	0	15,963	
23	841.74	2,699,079	-12,282	28,685	6	120	18	0	28,829	0	16,547	
24	840.79	2,686,706	-12,373	24,141	6	120	27	0	24,294	0	11,921	
25	840.25	2,679,691	-7,015	19,732	6	120	90	0	19,948	0	12,933	
26	840.87	2,687,747	8,056	22,455	6	120	108	0	22,689	0	30,745	
27	842.37	2,707,307	19,560	29,866	3	0	0	6,694	36,563	0	56,123	
28	840.73	2,685,926	-21,381	28,084	0	0	36	53,595	81,715	0	60,334	
29	839.68	2,672,295	-13,631	26,427	0	0	0	74,504	100,931	0	87,300	
30	845.01	2,741,974	69,679	26,751	0	0	0	74,876	101,627	0	171,306	
31	858.87	2,929,103	187,129	16,259	0	0	37	136,436	152,732	0	339,861	
<b>TOTALS</b>				214,075	686,778	159	1,255	1,167	479,959	1,169,318	2,859	1,380,534

1/ Includes bypass flows

2/ Only occurs when Lake water elevation is greater than or equal to 813.00 and there is no spill.

3/ Evaporation will be zero for days when there is precipitation or heavy overcast.

4/ Does not include pumpback.

**Table 5. Thermalito Forebay  
Including Diversion Pool and Power Canal**

Daily Operation  
(in acre-feet except as noted)

Capacity: 25,120 ac-ft

**December 1996**

Date	Storage 1/	Storage Change	Inflow			Outflow					Losses (-) And Gains (+)
			Lake Oroville Releases 2/	Kelly Ridge Generation	Thermalito Pumping- Generating Plant Pumpback	Thermalito Pumping- Generating Plant Generation 3/	Butte County	Thermalito Irrigation District	Releases To River 4/	Hyatt Powerplant Pumpback	
Nov 30	23,267										
1	23,608	341	57	0	3,710	0	3	3	3,313	0	-107
2	23,938	330	10,435	0	0	7,753	3	3	3,314	0	968
3	23,986	48	13,331	286	0	10,595	3	3	3,354	0	386
4	24,249	263	11,995	462	0	9,072	3	3	3,374	0	258
5	23,520	-729	12,906	468	0	11,027	3	3	3,314	0	244
6	23,820	300	14,037	472	1,144	12,201	3	3	3,314	0	168
7	24,111	291	4,234	627	1,142	1,190	3	3	3,312	507	-697
8	24,505	394	4,306	498	1,619	1,222	3	3	3,314	1,488	1
9	23,950	-555	17,167	359	0	15,383	3	3	3,336	0	644
10	23,713	-237	21,624	506	802	19,753	3	3	3,376	864	830
11	22,366	-1,347	46,030	530	0	31,810	3	3	9,860	0	-6,231
12	22,574	208	53,637	502	0	35,113	3	3	17,139	0	-1,673
13	22,689	115	54,926	502	0	35,006	3	3	18,488	0	-1,813
14	22,612	-77	55,492	510	0	35,376	3	3	18,885	0	-1,812
15	23,116	504	55,562	502	0	34,794	4	3	18,925	0	-1,834
16	22,737	-379	44,656	484	0	32,482	4	3	11,945	0	-1,085
17	23,498	761	29,649	499	0	26,295	4	4	3,195	0	111
18	23,172	-326	29,759	499	0	27,412	4	4	3,295	0	131
19	23,647	475	29,796	499	0	26,612	4	4	3,297	0	97
20	23,604	-43	30,022	499	0	27,523	4	4	3,217	0	184
21	23,668	64	29,663	502	0	27,034	4	4	3,195	0	136
22	23,891	223	29,723	490	0	26,971	4	4	3,217	0	206
23	23,868	-23	28,805	506	0	26,214	4	4	3,197	0	85
24	23,802	-66	24,261	502	0	21,806	4	4	3,215	0	200
25	23,905	103	19,852	504	0	17,062	4	4	3,195	0	12
26	23,216	-689	22,575	488	0	21,783	4	4	3,273	0	1,312
27	23,189	-27	36,560	510	0	30,604	4	4	6,171	0	-314
28	22,910	-279	81,679	510	0	33,557	4	4	47,011	0	-1,892
29	22,921	11	100,931	502	0	33,682	4	4	68,631	0	899
30	23,192	271	101,627	488	0	33,717	4	4	68,629	0	510
31	22,983	-209	152,695	504	0	33,587	4	4	123,969	0	4,156
TOTALS		-284	1,167,992	14,210	8,417	706,636	110	108	475,270	2,859	-5,920

1/ Sum of Thermalito Forebay and Diversion Pool.

2/ Sum of releases from Lake Oroville through Hyatt plant, spill, and spillway leakage.

3/ Includes Bypass flows at Thermalito.

4/ The sum of the flows from fish barrier dam and the fish hatchery.

**Table 6. Thermalito Afterbay**

Daily Operation

(in acre-feet except as noted)

Capacity: 57,040 ac-ft

**December 1996**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow	Outflow						Losses (-) and Gains (+)	Total Releases to River 2/	
				Thermalito Pumping-Generating Plant Generation 1/	Sutter Butte Canal	Western Canal Lateral	Richvale Canal	Western Canal	River Outlet	Thermalito Pumping-Generating Plant Pumpback			
Nov 30	130.16	32,685											
1	127.90	25,532	-7,153	0	831	2	541	389	1,563	3,710	-117	4,876	
2	129.28	29,801	4,269	7,753	829	2	544	391	1,571	0	-147	4,885	
3	131.31	36,643	6,842	10,595	827	3	546	391	1,569	0	-417	4,923	
4	133.08	43,147	6,504	9,072	803	3	546	373	1,569	0	726	4,943	
5	134.39	48,270	5,123	11,027	807	3	544	318	3,392	0	-840	6,706	
6	134.34	48,070	-200	12,201	795	3	545	294	8,769	1,144	-851	12,083	
7	131.66	37,890	-10,180	1,190	793	3	540	290	8,807	1,142	205	12,119	
8	128.16	26,312	-11,578	1,222	791	3	544	290	8,769	1,619	-784	12,083	
9	129.57	30,737	4,425	15,383	764	2	541	238	8,787	0	-626	12,123	
10	128.80	28,280	-2,457	19,753	702	2	506	149	17,693	802	-2,356	21,069	
11	128.04	25,951	-2,329	31,810	649	1	478	85	29,753	0	-3,173	39,613	
12	127.75	25,087	-864	35,113	676	0	474	60	31,736	0	-3,031	48,875	
13	127.77	25,146	59	35,006	680	0	474	58	30,349	0	-3,386	48,837	
14	128.26	26,615	1,469	35,376	730	0	466	60	29,953	0	-2,698	48,838	
15	128.61	27,689	1,074	34,794	748	0	466	61	29,953	0	-2,492	48,878	
16	128.54	27,473	-216	32,482	754	1	468	113	28,961	0	-2,401	40,906	
17	127.51	24,383	-3,090	26,295	750	2	464	153	25,787	0	-2,229	28,982	
18	126.84	22,467	-1,916	27,412	753	2	466	153	25,787	0	-2,167	29,082	
19	126.03	20,252	-2,215	26,612	753	2	466	155	25,787	0	-1,664	29,084	
20	125.84	19,747	-505	27,523	753	2	466	151	24,597	0	-2,059	27,814	
21	126.10	20,439	692	27,034	756	2	466	155	23,011	0	-1,952	26,206	
22	126.79	22,327	1,888	26,971	758	2	462	153	21,820	0	-1,888	25,037	
23	127.50	24,353	2,026	26,214	760	2	456	153	20,630	0	-2,187	23,827	
24	127.48	24,295	-58	21,806	758	2	466	157	18,647	0	-1,834	21,862	
25	126.70	22,077	-2,218	17,062	754	2	458	155	16,624	0	-1,287	19,819	
26	128.22	26,494	4,417	21,783	756	2	460	129	15,136	0	-883	18,409	
27	129.96	32,019	5,525	30,604	698	1	463	36	22,416	0	-1,465	28,587	
28	129.68	31,096	-923	33,557	597	0	463	0	31,540	0	-1,880	78,551	
29	129.76	31,358	262	33,682	534	0	463	0	31,143	0	-1,280	99,774	
30	129.98	32,085	727	33,717	549	0	460	0	30,945	0	-1,036	99,574	
31	130.54	33,970	1,885	33,587	472	0	468	0	31,936	0	1,174	155,905	
<b>TOTALS</b>		1,285	706,636	22,580	49	15,170	5,110	609,000	8,417	-45,025	1,084,270		

1/ Includes Bypass flows at Thermalito.

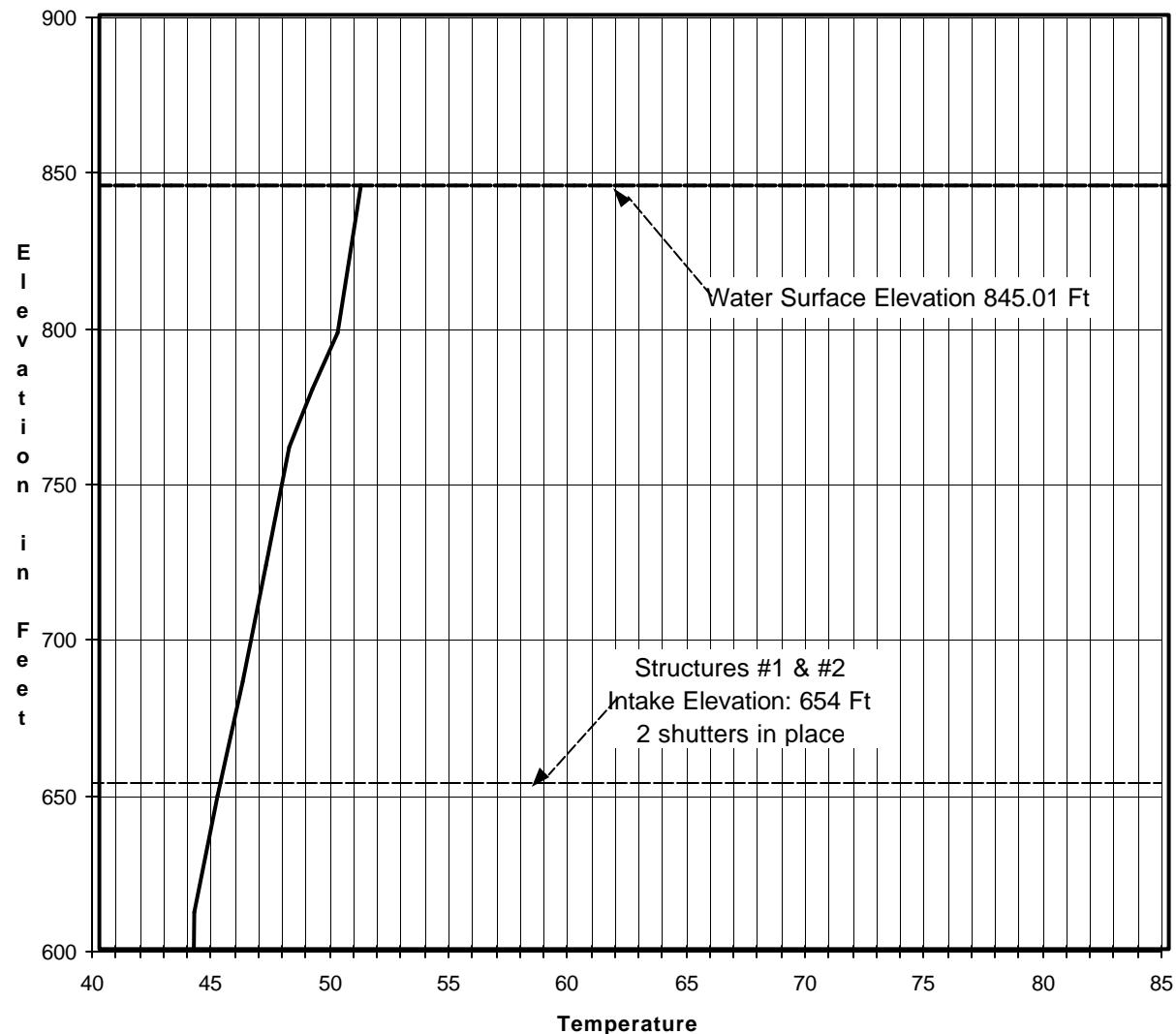
2/ The sum of the flows from the fish barrier dam, fish hatchery, and afterbay river outlet.

**Table 7. Oroville-Thermalito Complex**

Water Temperature Data

December 1996

Date	Mean Daily Temperature	
	Thermalito Afterbay Outlet	Fish Hatchery
1	50	50
2	49	50
3	49	50
4	48	50
5	48	50
6	49	51
7	49	50
8	49	50
9	50	50
10	50	50
11	50	51
12	51	53
13	52	53
14	50	52
15	50	52
16	51	52
17	50	50
18	49	49
19	48	49
20	47	49
21	47	49
22	47	49
23	48	49
24	48	49
25	48	49
26	48	49
27	48	49
28	48	51
29	50	51
30	51	51
31	52	51

**Lake Oroville Temperature Profile  
on December 30, 1996**

**Table 8. Aqueduct Operation**  
**Delta Field Division**  
(in acre-feet except as noted)

December 1996

NORTH BAY AQUEDUCT

Pumped at Barker Slough Pumping Plant	1,507
Travis Turnout	142
Fairfield/Vacaville Turnout	0
Pumped at Cordelia Pumping Plant	1,311
Cordelia Pumping Plant Spillway	0
Computed Losses (-) or Gains (+)	-54
Benicia Turnout	491
Vallejo Turnout	0
American Canyon 1	92
American Canyon 2	0
Napa Treatment Plant	728
Total Deliveries (After Cordelia)	1,311
Change in Storage at Napa Terminal Tank	0

CALIFORNIA AQUEDUCT

Amount Pumped at Banks Pumping Plant	210,924
Amount Pumped at South Bay Pumping Plant	5,014
Deliveries From California Aqueduct ( Oak Flat Water District, Tracy Golf, Veterans Cemetery, and Musco Olive)	26
Inflow into California Aqueduct	0
Change in Storage	-589
Flow Past Check 12	201,701
Computed Losses (-) or Gains (+)	-4,772

Note: Individual pool elevation and storage changes for pools 1-12 are available at Project Operations Center.

**Table 9. Delta Field Division Plant Data**

(in acre-feet)

**December 1996**

Date	North Bay Aqueduct		California Aqueduct		South Bay Aqueduct		
	Barker Slough Pumping Plant	Cordelia Pumping Plant	Banks Pumping Plant		South Bay Pumping Plant	Del Valle Pumping Plant	
			Total	SWP		Del Valle	Into South Bay Aqueduct
1	53	45	12,494	12,494	83	0	224
2	56	45	10,320	10,320	48	0	221
3	52	45	9,702	9,702	80	0	218
4	41	34	10,379	10,379	159	0	7
5	45	38	10,184	10,184	184	0	0
6	57	43	12,449	12,449	192	0	0
7	48	38	12,844	12,844	195	0	0
8	45	35	12,514	12,514	166	0	0
9	56	49	12,404	12,404	174	0	54
10	45	35	11,893	11,893	197	0	53
11	51	45	4,230	4,230	197	0	40
12	44	36	11,870	3,577	183	0	40
13	48	45	12,664	3,462	189	0	40
14	51	44	11,236	2,882	173	0	40
15	45	38	12,464	343	170	0	40
16	41	34	11,328	2,974	187	0	13
17	36	30	4,446	4,446	176	0	0
18	65	59	1,814	1,814	197	0	0
19	45	50	0	0	197	0	0
20	63	56	1,451	1,451	197	0	0
21	60	56	4,383	4,383	197	0	0
22	65	61	5,995	5,995	174	0	0
23	57	50	2,446	2,446	158	0	0
24	43	37	3,689	3,689	107	0	0
25	30	23	2,189	2,189	93	0	0
26	50	50	1,821	1,821	156	0	0
27	49	45	1,468	1,468	166	0	0
28	42	35	0	0	178	0	0
29	48	37	1,086	1,086	114	0	0
30	40	39	1,462	1,462	178	0	0
31	36	34	0	0	149	0	0
Total	1,507	1,311	211,225	164,901	5,014	0	990

**Table 10. Clifton Court Forebay**

Daily Operation of Gates

**December 1996**

Date	Time Opened	Time Closed	Daily Amount of inflow in Acre-Feet	Date	Time Opened	Time Closed	Daily Amount of inflow in Acre-Feet
1	---	03:10 07:09	12,882	16	---	01:50 07:20 08:12 12:10 ---	10,874
2	00:01 07:55 12:55	04:00 08:55 ---	9,631	17	---	01:45 08:40 09:22 12:56 15:50	4,295
3	---	05:10 08:54 17:50 22:27	10,391	18	00:20 13:50	04:40 16:15	1,771
4	---	05:54 14:14 19:50 23:20	8,251	19	15:23	17:02	1,598
5	---	08:31 14:51	10,893	20	11:35 15:24	12:18 16:19	781
6	00:06 14:28	12:23 20:12	12,857	21	02:27	08:04	
7	00:48 16:40	13:12 20:54	13,145	22	12:09 16:37	13:13 18:00	4,297
8	01:23 17:26	13:55 21:27	13,030	23	01:55 12:18	09:08 14:05	6,103
9	02:08 18:02	14:40 20:07	12,877	24	04:00	10:03	2,489
10	07:50 18:30	15:25 20:00	13,056	25	03:32 13:53	10:40 14:15	4,164
11	03:22 18:48	10:18 21:55	7,790	26	04:55	09:15	2,362
12	04:06 14:35 19:33	12:15 16:59 23:45	11,351	27	05:40	08:06	1,865
13	04:50 15:43 20:20	14:05 17:51 ---	12,556	28	06:05	08:05	1,489
14	---	01:08 05:37 16:50 22:15	10,243	29	07:35 19:40	11:45 22:10	3,009
15	---	01:38 06:36 11:13	13,242	30	10:35 18:20	12:30 19:13	1,129
				31	11:10	13:20	1,505
					---	---	0

Total inflow for the month: 219,926 AF

**Table 11. Governor Edmund G. Brown California Aqueduct**

## Delta Field Division, Monthly Deliveries

(In acre-feet)

December 1996

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Entitlement	USBR	Misc.	Loan Water	1995 Carryover Ent.		
	No.	Structure	Mile									
2A	1	Banks Pumping Plant	3.32		210,924	25	25	0	0	0		
		South Bay Pumping Plant		South Bay Aqueduct	5,014							
		Check No. 1	5.95									
		Check No. 2	12.01									
			12.47	Musco Olive	25							
		Check No. 3	18.29									
			22.16	Tracy Golf & Country Club	0							
		Check No. 4	23.99									
		Check No. 5	29.73									
		Check No. 6	34.24									
			35.22	Turlock Fruit Company Inflow	0							
		Check No. 7	39.91									
2B	2		42.46	Oak Flat Water District-A	0	0	0	0	0	0		
			43.81	Oak Flat Water District-B	0							
			44.64	Oak Flat Water District-C	0							
		Check No. 8	45.97									
			46.18	Oak Flat Water District-D	0							
				Oak Flat Totals:	0		0	0	0	0		
		Check No. 9	51.30									
		Check No. 10	56.86									
		Check No. 11	61.40									
			66.14	Veteran's Cemetery	1		1	1	1	1		
		Check No. 12	66.71									

**Table 12. South Bay Aqueduct**  
Delta Field Division, Monthly Deliveries

(In acre-feet)

**December 1996**

Reach No.	Operating Pool		Turnout	Total Diversions	Deliveries								
	Beginning and Ending				Entitle-ment	1995 Carryover M&I Ent.	Local	Rec.	Drought Bank	Oper. Flood Loss			
	No.	Structure	Mile										
1	1		3.17	Granite - Vasco Rd. (Temp.)	0	3	620	143	1				
			3.18	Zone 7 Oakland Scavenger	3								
		Check No. 1	3.91										
	2	Check No. 2	5.21										
2	3		7.21	Zone 7 Altamont	0	5	146	925	1				
		Check No. 3	9.49	Zone 7 Patterson	620								
4	4	Check No. 4	10.68			14	1,371	554	1				
	5	Check No. 5	12.29										
	6		13.55	Zone 7 Wente #1	5								
			14.16	Zone 7 Wente #2	0								
		Check No. 6	14.65										
	7		14.78	Zone 7 Arroyo Mocho	143								
		Check No. 7	16.38										
	8		16.57	Zone 7 Wente #3	0								
			16.69	Zone 7 Norman Nursery	0								
			16.70	Zone 7 Concannon	0								
		Del Valle Branch Pipeline Junction	18.63										
		Deliveries through Del Valle Branch Pipeline		Arroyo Valle #1 & #2 Project Water	0								
5				Arroyo Valle #1 & #2 Inflow Released	146	14	1,371	554	1				
				Lake Del Valle Recreation	1								
				Zone 7 Wente #5	0								
				So. Livermore Project	0								
				So. Livermore Inflow Released	925								
6			19.20	So. Livermore Inflow Exchanged	0	14	1,371	554	1				
				Zone 7 - Kalthrof Detjens	14								
		La Costa Tunnel	22.50	ACWD Vallecitos - Flood Release	0								
7			25.97	City of San Francisco San Antonio	0								
8	Mission Tunnel	28.97	ACWD - Bayside 1 & 2 Project Water:	0									
			8								Inflow Released:	1,371	
			Inflow Exchanged:	554									
9		Santa Clara Pipeline	35.86	S.C.V.W.D. Meter	3,665	3,665							

**Table 13. Lake Del Valle**

Daily Operation

(in acre-feet except as noted)

**December 1996**

Capacity: 77,106 ac-ft

Date	Water Surface Elevation (feet)	Storage	Storage Change	Inflow		Outflow					Precipitation (inches)
				Natural 1/ 3/	From South Bay Aqueduct	Arroyo Valle 3/	South Bay Aqueduct 3/	Recreation Deliveries 2/ 3/	Evaporation	Total Outflow 3/	
Nov 30	667.58	20,076									
1	667.09	19,874	-202		0				0		0.13
2	666.58	19,666	-208		0				3		0.00
3	666.04	19,445	-221		0				2		0.00
4	665.88	19,380	-65		0				0		0.27
5	666.30	19,552	172		0				0		0.28
6	666.59	19,670	118		0				0		0.28
7	666.66	19,699	29		0				1		0.01
8	666.65	19,695	-4		0				2		0.00
9	671.04	21,547	1,852		0				1		0.00
10	673.67	22,721	1,174		0				2		0.52
11	674.63	23,163	442		0				0		0.05
12	675.46	23,552	389		0				1		0.17
13	675.90	23,760	208		0				0		0.19
14	676.14	23,875	115		0				1		0.00
15	676.25	23,927	52		0				4		0.00
16	676.26	23,932	5		0				2		0.00
17	676.21	23,908	-24		0				2		0.00
18	676.12	23,865	-43		0				2		0.00
19	676.02	23,818	-47		0				1		0.00
20	678.47	25,010	1,192		0				1		0.00
21	683.97	27,896	2,886		0				0		1.52
22	685.68	28,852	956		0				0		0.57
23	686.28	29,193	341		0				1		0.15
24	686.55	29,348	155		0				1		0.01
25	686.79	29,486	138		0				1		0.00
26	686.79	29,486	0		0				2		0.06
27	687.03	29,625	139		0				1		0.19
28	687.17	29,706	81		0				1		0.00
29	687.28	29,770	64		0				2		0.00
30	687.47	29,880	110		0				1		0.11
31	687.95	30,161	281		0				0		0.03
Totals		10,085	12,563	0	0	2,442	1	35	2,478	4.54	

1/ Total inflow from stream gaging station above Lang Canyon and accretions/depletions.

2/ To East Bay Regional Park District.

3/ Not available on a daily basis.

NR=No Records

**Table 14. Consolidated State-Federal O'Neill Forebay**

Daily Operations

**December 1996**

United States

State of California

Department of the Interior

The Resources Agency

Bureau of Reclamation

Department of Water Resources

Central Valley Project

State Water Project

Capacity: 56,430 Acre-feet

Date	Water Surface Elev. (in feet)	Storage (ac-ft)	Storage Change (ac-ft)	Inflow (cfs)				Outflow (cfs)				Computed Losses (-) Gains (+) (cfs)	
				Pump In 1/	O'Neill Pumping Generating Plant	Gianelli Pumping Generating Plant	California Aqueduct	O'Neill Pumping Generating Plant	Gianelli Pumping Generating Plant	Dos Amigos Pumping Plant	Deliv- eries 2/		
Nov 30	221.32	46,600											
1	219.10	40,839	-5,761	0	3,476	0	6,129	0	10,041	2,441	5	-22	
2	219.10	40,839	0	0	3,490	0	5,053	0	6,293	2,238	6	-6	
3	219.71	42,402	1,563	0	3,431	0	4,711	0	5,276	2,053	5	-20	
4	220.37	44,114	1,712	0	3,462	0	4,859	0	5,380	1,979	5	-94	
5	221.62	47,388	3,274	0	3,459	0	5,097	0	5,240	1,669	5	9	
6	223.25	51,714	4,326	0	3,568	0	6,209	0	6,199	1,308	4	-85	
7	223.50	52,384	670	0	3,545	0	5,904	0	7,764	1,361	4	18	
8	220.10	43,411	-8,973	0	3,612	0	6,407	0	12,520	2,053	5	35	
9	221.29	46,521	3,110	0	3,567	0	5,854	0	5,689	2,264	4	104	
10	222.37	49,368	2,847	0	3,678	0	6,013	0	6,062	2,558	5	369	
11	221.84	47,966	-1,402	0	3,676	0	1,889	0	4,071	2,159	5	-37	
12	220.68	44,923	-3,043	0	4,005	0	5,748	0	9,455	1,910	5	83	
13	220.87	45,420	497	0	4,085	0	6,304	0	8,433	1,845	5	145	
14	221.21	46,311	891	0	4,057	0	5,608	0	7,481	1,732	2	-1	
15	220.16	43,567	-2,744	0	3,943	0	5,822	0	9,554	1,867	2	275	
16	219.72	42,428	-1,139	0	3,800	0	5,526	0	7,126	2,779	2	7	
17	220.15	43,541	1,113	0	3,701	0	2,059	0	2,962	2,239	2	4	
18	220.09	43,386	-155	0	3,735	1,279	863	0	3,372	2,169	3	-411	
19	221.20	46,285	2,899	0	3,831	3,801	0	0	3,819	2,335	2	-14	
20	219.56	42,016	-4,269	0	4,012	1,398	0	0	4,501	2,924	3	-134	
21	220.34	44,036	2,020	0	3,956	0	2,005	0	3,186	2,082	2	327	
22	220.08	43,360	-676	0	3,852	0	3,061	0	5,611	1,482	2	-159	
23	220.95	45,629	2,269	0	3,924	0	1,141	0	2,154	1,675	2	-90	
24	222.18	48,863	3,234	0	3,889	0	1,657	0	2,109	1,765	2	-40	
25	220.42	44,244	-4,619	0	3,929	0	1,107	0	5,584	1,535	2	-244	
26	221.45	46,941	2,697	0	3,866	0	889	0	2,335	1,084	2	26	
27	222.55	49,847	2,906	0	3,947	0	570	0	1,540	1,162	2	-348	
28	222.47	49,634	-213	0	4,003	0	0	0	3,324	955	2	171	
29	221.45	46,941	-2,693	0	4,026	0	442	0	4,996	1,059	3	232	
30	221.95	48,255	1,314	0	3,895	0	763	0	2,908	1,281	3	196	
31	221.39	46,784	-1,471	0	3,918	0	0	0	3,178	1,688	3	209	
TOTAL				184	0	117,338	6,478	101,690	0	168,163	57,651	104	505
MEAN CFS				---	0	3,785	209	3,280	0	5,425	1,860	3	16
ACRE-FEET				184	0	232,734	12,847	201,701	0	333,550	114,352	206	1,010

1/ Pump-in located at Mile 79.67R.

2/ Includes 32 AF delivered to DFG at O'Neill Forebay and includes the year end total for P&R of 118 AF and the Cattle Program total of 8 AF. These totals have been included for clarity.

**Table 15. Consolidated State-Federal San Luis Reservoir**

Daily Operations

**December 1996**

United States

Department of the Interior

Bureau of Reclamation

Central Valley Project

State of California

The Resources Agency

Department of Water Resources

State Water Project

Capacity: 2,027,835 ac-ft

Date	Water Surface Elev. (in feet)	Storage Change (ac-ft)	Inflow (cfs)	Outflow (cfs)				Computed Losses (-) Gains (+) (cfs)	Evap. (in)	Prec. (in)
				Gianelli Pumping Generating Plant	Gianelli Pumping Generating Plant	Pacheco Tunnel 1/	Recreation Deliveries			
Nov 30	507.64	1,596,193								
1	509.27	1,615,299	19,106	10,041	0	155	0	-254	0.09	0.01
2	510.27	1,627,059	11,760	6,293	0	155	0	-209	0.10	0.00
3	511.10	1,636,842	9,783	5,276	0	148	0	-196	0.08	0.00
4	511.97	1,647,119	10,277	5,380	0	209	0	10	0.08	0.00
5	512.79	1,656,824	9,705	5,240	0	223	0	-124	0.04	0.08
6	513.81	1,668,925	12,101	6,199	0	233	0	135	0.03	0.10
7	515.03	1,683,438	14,513	7,764	0	238	0	-209	0.05	0.01
8	517.04	1,707,442	24,004	12,520	0	228	0	-190	0.06	0.00
9	517.96	1,718,468	11,026	5,689	0	176	0	46	0.04	0.14
10	519.10	1,732,165	13,697	6,062	0	133	0	976	0.02	0.59
11	519.78	1,740,353	8,188	4,071	0	25	0	82	0.08	0.87
12	521.25	1,758,098	17,745	9,455	0	25	0	-484	0.00	0.03
13	522.58	1,774,207	16,109	8,433	0	184	0	-127	0.03	0.01
14	523.74	1,788,299	14,092	7,481	0	165	0	-211	0.09	0.00
15	525.19	1,805,967	17,668	9,554	0	157	0	-490	0.10	0.00
16	526.27	1,819,166	13,199	7,126	0	169	0	-303	0.04	0.00
17	526.70	1,824,430	5,264	2,962	0	117	0	-191	0.02	0.00
18	527.02	1,828,351	3,921	3,372	1,279	166	0	50	0.03	0.00
19	526.99	1,827,984	-367	3,819	3,801	146	0	-57	0.01	0.00
20	527.47	1,833,870	5,886	4,501	1,398	129	0	-7	0.02	0.00
21	528.10	1,841,606	7,736	3,186	0	122	0	836	0.00	0.12
22	529.07	1,853,540	11,934	5,611	0	132	0	538	0.00	1.45
23	529.40	1,857,606	4,066	2,154	0	130	0	26	0.15	0.09
24	529.69	1,861,181	3,575	2,109	0	147	0	-160	0.05	0.00
25	530.56	1,871,922	10,741	5,584	0	160	0	-9	0.05	0.00
26	530.90	1,876,126	4,204	2,335	0	165	0	-51	0.00	0.01
27	531.10	1,878,600	2,474	1,540	0	126	0	-167	0.02	0.10
28	531.58	1,884,543	5,943	3,324	0	126	0	-202	0.00	0.01
29	532.25	1,892,848	8,305	4,996	0	126	0	-683	0.00	0.02
30	532.66	1,897,937	5,089	2,908	0	126	0	-216	0.03	0.27
31	533.10	1,903,404	5,467	3,178	0	125	0	-297	0.01	0.01
<b>TOTAL</b>			307,211	168,163	6,478	4,666	0	-2,138	1.32	3.92
<b>MEAN CFS</b>			---	5,425	209	151	0	-69	---	---
<b>ACRE-FEET</b>			307,211	333,550	12,847	9,255	0	-4,237	---	---

1/ Pacheco Tunnel, San Felipe Split; Santa Clara: 9,135 AF, San Benito: 120 AF

**Table 16. San Luis Field Division Plant Data**

(in acre-feet)

**December 1996**

Date	Dos Amigos Pumping Plant		Gianelli Pumping- Generating Plant				San Felipe Project
	Total Pumping	SWP Pumping 1/, 2/	Total Generation	SWP Generation 1/, 2/	Total Pumping	SWP Pumping 1/, 2/	Federal
1	4,841	4,841	0	0	19,917	6,721	307
2	4,440	4,440	0	0	12,482	7,613	308
3	4,073	3,395	0	0	10,464	5,611	293
4	3,926	3,246	0	0	10,671	5,914	414
5	3,311	2,647	0	0	10,394	5,535	442
6	2,594	1,939	0	0	12,295	6,266	462
7	2,699	2,028	0	0	15,399	10,528	473
8	4,072	3,357	0	0	24,834	12,063	452
9	4,490	3,799	0	0	11,285	6,540	350
10	5,074	4,378	0	0	12,023	7,439	263
11	4,283	3,610	0	0	8,075	134	50
12	3,788	3,131	0	0	18,754	-121	50
13	3,660	2,998	0	0	16,726	16	365
14	3,436	2,769	0	0	14,839	-45	327
15	3,703	3,012	0	0	18,950	-119	312
16	5,513	4,886	0	0	14,135	-162	336
17	4,441	3,783	0	0	5,875	-68	232
18	4,302	3,650	2,536	2,536	6,689	-59	330
19	4,631	3,943	7,539	7,539	7,575	-304	289
20	5,799	4,615	2,772	2,772	8,928	2,796	256
21	4,129	2,985	0	0	6,319	-60	241
22	2,940	1,824	0	0	11,129	-109	262
23	3,322	2,164	0	0	4,273	-79	258
24	3,501	2,365	0	0	4,183	2	291
25	3,044	1,910	0	0	11,076	-127	318
26	2,151	1,100	0	0	4,631	40	327
27	2,305	1,490	0	0	3,055	-14	250
28	1,894	782	0	0	6,593	-137	250
29	2,101	975	0	0	9,909	-108	250
30	2,540	1,418	0	0	5,768	-52	250
31	3,349	2,206	0	0	6,304	-54	247
<b>Total</b>	<b>114,352</b>	<b>89,686</b>	<b>12,847</b>	<b>12,847</b>	<b>333,550</b>	<b>75,600</b>	<b>9,255</b>

1/ Negative values in SWP columns indicate a mismatch of scheduled CVP energy and actual pumping;

adjustments to SWP water shares are made to balance the mismatch.

2/ Provisional, subject to change.

**Table 17. Consolidated State-Federal Los Banos Reservoir**

Daily Operations

December 1996

United States

Department of the Interior

Bureau of Reclamation

Central Valley Project

State of California

The Resources Agency

Department of Water Resources

State Water Project

Capacity: 34,560 ac-ft

Date	Water Surface Elev. (in feet)	Storage (ac-ft)	Storage Change (ac-ft)	Estimated Inflow (cfs)	Estimated Outflow (cfs)		Computed Losses (-) Gains (+) (ac-ft)	Evap. (in)	Prec. (in)
					Spill	Outlet			
Nov 30	327.98	20,660							
1	327.99	20,665	5	3	0	0	-1	0.05	0.03
2	327.99	20,665	0	0	0	0	0	0.10	Trace
3	328.00	20,670	5	3	0	0	-1	0.09	0.00
4	328.01	20,674	4	2	0	0	0	0.06	0.00
5	328.37	20,844	170	86	0	0	0	0.08	0.13
6	328.61	20,958	114	115	0	58	1	0.02	0.02
7	328.45	20,882	-76	62	0	100	-1	0.09	0.00
8	328.19	20,759	-123	38	0	100	0	0.10	0.00
9	327.63	20,496	-263	29	0	162	1	0.02	0.10
10	330.39	21,811	1,315	863	0	200	0	0.01	0.32
11	331.95	22,574	763	585	0	200	-1	0.04	0.39
12	331.96	22,579	5	203	0	200	-1	0.03	0.10
13	331.70	22,451	-128	135	0	200	1	0.03	0.05
14	331.25	22,230	-221	89	0	200	-1	0.06	0.00
15	330.69	21,957	-273	62	0	200	1	0.06	0.00
16	330.09	21,666	-291	53	0	200	1	0.11	0.01
17	329.43	21,349	-317	40	0	200	1	0.03	0.00
18	328.75	21,024	-325	36	0	200	0	0.04	0.01
19	328.07	20,703	-321	38	0	200	1	0.00	Trace
20	327.82	20,585	-118	24	0	83	-1	0.02	Trace
21	328.99	21,138	553	288	0	9	0	0.02	0.04
22	332.06	22,628	1,490	943	0	192	1	0.00	0.98
23	332.00	22,599	-29	252	0	267	1	0.06	0.02
24	331.28	22,245	-354	122	0	300	-1	0.05	0.00
25	330.41	21,821	-424	86	0	300	1	0.04	0.00
26	329.49	21,377	-444	76	0	300	0	0.02	0.01
27	328.76	21,029	-348	75	0	250	-1	0.02	0.14
28	328.17	20,750	-279	59	0	200	1	0.10	0.01
29	327.55	20,458	-292	53	0	200	0	0.03	0.01
30	327.06	20,230	-228	85	0	200	0	0.02	0.34
31	326.79	20,104	-126	78	0	142	1	0.02	Trace
<b>TOTAL</b>			-556	4,583	0	4,863	3	1.42	2.71
<b>MEAN CFS</b>			---	148	0	157	---	---	---
<b>ACRE-FEET</b>			-556	9,090	0	9,649	3	---	---

**Table 18. Consolidated State-Federal Little Panoche Reservoir**

Daily Operations

**December 1996**

United States

State of California

Department of the Interior

The Resources Agency

Bureau of Reclamation

Department of Water Resources

Central Valley Project

State Water Project

Capacity = 5,580 ac-ft

Date	Water Surface Elev. (in feet)	Storage (ac-ft) 1/	Storage Change (ac-ft) 1/	Estimated Inflow (cfs)	Estimated Outflow (cfs)		Computed Losses (-) Gains (+) (ac-ft) 1/
					Spill	Outlet	
Nov 30	602.25	806					
1	Not Observed			3	0	3	
2	602.25	806	0	3	0	3	
3	Not Observed			3	0	3	
4	Not Observed			3	0	3	
5	Not Observed			3	0	3	
6	602.25	806	0	3	0	5	
7	Not Observed			6	0	5	
8	Not Observed			6	0	5	
9	602.30	809	3	4	0	4	
10	602.35	812	3	6	0	4	
11	Not Observed			8	0	4	
12	602.65	829	17	10	0	5	
13	602.60	826	-3	3	0	4	
14	Not Observed			3	0	4	
15	Not Observed			3	0	4	
16	Not Observed			3	0	4	
17	Not Observed			3	0	4	
18	Not Observed			3	0	4	
19	Not Observed			3	0	4	
20	602.55	823	-3	3	0	4	
21	Not Observed			5	0	4	
22	602.65	829	6	6	0	5	
23	602.80	838	9	12	0	8	
24	Not Observed			7	0	8	
25	Not Observed			7	0	8	
26	Not Observed			7	0	8	
27	602.60	826	-12	8	0	9	
28	Not Observed			9	0	9	
29	Not Observed			9	0	9	
30	602.60	826	0	5	0	4	
31	602.50	826	0	5	0	4	
<b>TOTAL</b>			20	162	0	155	6
<b>MEAN CFS</b>			---	5	0	5	---
<b>ACRE-FEET</b>			20	321	0	307	6

1/ Not available on a daily basis

**Table 19a. Governor Edmund G. Brown California Aqueduct**

San Luis Field Division, Monthly Deliveries

(In acre-feet)

**December 1996**

Reach No.	Operating Pool			Turnout	Total Diver- sions	Deliveries					
	Beginning and Ending					USBR	Transfer	DWR	USBR		
	No.	Structure	Mile					Recreation	Recreation		
3	13	O'Neill Forebay		Department of Fish & Game	32	174	174	18	14		
		Outlet Check No. 13	70.85								
			70.91								
			Thru								
			85.08								
4	14	Reach 3 Total:			206	174	0	18	14		
		Dos Amigos Pumping Plant	86.73	114,352	415	415	1	3	58		
			89.03								
			Thru								
			94.06								
			89.66								
			Thru								
			89.67								
			89.68								
			City of Dos Palos								
4	15	Check No. 14	95.06								
			98.15	83	2,584	83	1	1	6,678		
			Thru								
			104.20								
			96.15								
			Thru								
			102.64								
			102.64								
			105.22								
			Thru								
			108.64								
		Check No.15	108.50								
			Pacheco Water District Total:	1	1	1	0	0	0		
			Broadview Water District Total:	1	1	1	0	0	0		
			City of Dos Palos Total:	58	58	58	0	0	0		
			SLWD Reach 4 Subtotal:	498	498	498	0	0	0		
			Panoche Water District Total:	2,587	2,587	2,587	0	0	0		
			SLWD Total:	672	672	672	0	0	0		
			Westlands WD Reach 4 Subtotal:	6,678	6,678	6,678	0	0	0		

**Table 19b. Governor Edmund G. Brown California Aqueduct**

San Luis Field Division, Monthly Deliveries (Continued)

(In acre-feet)

**December 1996**

Reach No.	Operating Pool			Turnout	Total Diver-sions	Deliveries							
	Beginning and Ending					USBR	Transfer	DWR	USBR				
	No.	Structure	Mile					Recreation	Recreation				
5	16		110.52	Westlands Water District	9,198	9,198	2,836	8,157	3,945				
			Thru										
			122.05										
	17		122.07										
			124.18	Westlands Water District	2,836								
			132.74										
	18		132.95										
			133.81	Westlands Water District	8,157								
			142.61										
6	19	Pleasant Valley PP	143.16	Westlands Water District	3,945								
			143.16	City of Coalinga	232								
		Check No. 18	143.23										
	20			Westlands WD Reach 5 Subtotal:	24,136	24,136	0	0	0				
			145.26	Westlands Water District	3,905	3,905	0	0	0				
			Thru										
			151.19										
	21	Check No. 19	155.64										
				Westlands WD Reach 6 Subtotal:	3,905								
			156.34	City of Huron	57								
7	20		156.40	Westlands Water District	1,552	57	1,552	145	1,190				
			Thru										
			163.69										
	21	Check No. 20	164.69										
			164.79	City of Avenal	145								
			167.04	Westlands Water District	1,190								
			Thru										
		Check No. 21	171.67										
			172.40		78,111								
				Westlands WD Reach 7 Subtotal:	2,944	2,944	0	0	0				
				Westlands WD Total:	37,461	37,461	0	0	0				
				City of Coalinga Total:	232	232	0	0	0				
				City of Huron Total:	57	57	0	0	0				
				City of Avenal Total:	145	145	0	0	0				
				Phase I Water Total:	0	0	0	0	0				
				Total Canal Diversions:	41,246	41,214	0	18	14				

**Table 20. Consolidated State-Federal San Luis Canal 1/**

Daily Operations  
December 1996

United States  
Department of the Interior  
Bureau of Reclamation  
Central Valley Project

State of California  
The Resources Agency  
Department of Water Resources  
State Water Project

Date	Storage In Canal (ac-ft)	Storage Change (ac-ft)	Inflow (cfs)		Outflow (cfs)				Computed Losses (-) Gains (+) (cfs)	Evap. (in)	Prec. (in)
			Non- Project 2/	Dos Amigos Pumping Plant	SLWD 3/	PWD	WWD 4/	SJFD			
Nov 30	27,931										
1	27,784	-147	0	2,441	0	34	676	1,778	-27	0.09	0.01
2	28,047	263	0	2,238	3	34	650	1,289	-129	0.10	Trace
3	28,029	-18	0	2,053	0	39	746	1,292	15	0.08	0.00
4	28,229	200	0	1,979	8	36	808	1,071	45	0.08	0.00
5	27,985	-244	0	1,669	0	39	751	1,003	1	0.04	0.08
6	27,756	-229	0	1,308	5	30	712	703	26	0.03	0.10
7	27,388	-368	0	1,361	1	38	802	763	57	0.05	0.01
8	26,796	-592	0	2,053	3	40	793	1,119	-397	0.06	0.00
9	28,121	1,325	0	2,264	10	42	743	1,251	450	0.04	0.14
10	28,516	395	0	2,558	23	43	694	1,527	-72	0.02	0.59
11	28,591	75	0	2,159	16	45	530	1,547	17	0.08	0.87
12	28,823	232	0	1,910	23	40	629	1,167	66	0.00	0.03
13	28,481	-342	0	1,845	0	41	578	1,351	-48	0.03	0.01
14	27,544	-937	0	1,732	5	45	645	1,508	-1	0.09	0.00
15	26,812	-732	0	1,867	0	43	608	1,533	-52	0.10	0.00
16	28,301	1,489	0	2,779	0	45	643	1,384	44	0.04	0.00
17	27,648	-653	0	2,239	0	44	745	1,806	27	0.02	0.00
18	27,118	-530	0	2,169	0	44	667	1,671	-54	0.03	Trace
19	27,518	400	0	2,335	10	44	752	1,286	-42	0.01	Trace
20	28,222	704	0	2,924	12	54	733	1,710	-60	0.02	Trace
21	28,298	76	0	2,082	17	42	747	1,331	93	0.00	0.12
22	28,258	-40	0	1,482	17	42	628	974	158	0.00	1.45
23	28,141	-117	0	1,675	19	40	579	1,186	90	0.15	0.09
24	29,076	935	0	1,765	17	42	404	865	34	0.05	0.00
25	29,222	146	0	1,535	17	42	349	1,179	125	0.05	Trace
26	28,446	-776	0	1,084	20	45	404	1,119	113	0.00	0.01
27	27,415	-1,031	0	1,162	12	41	331	1,319	21	0.02	0.10
28	26,419	-996	0	955	10	47	485	1,011	96	0.00	0.01
29	25,345	-1,074	0	1,059	12	52	402	1,206	72	0.00	0.02
30	25,261	-84	0	1,281	10	46	462	985	179	0.03	0.27
31	25,023	-238	0	1,688	11	45	411	1,447	106	0.01	0.01
Total		-2,908	0	57,651	281	1,304	19,107	39,380	953	1.32	3.92
Mean (cfs)		---	0	1,915	9	41	637	1,276	31	---	---
Acre-feet		-2,908	0	114,352	557	2,587	37,899	78,111	1,894	---	---

1/ San Luis Canal includes Pools 14 through 21 of the California Aqueduct.

2/ Pump In of Non-Project Water (0 AF) and Flood Water (0 AF).

3/ Includes 0 AF AG & 1 AF M&I to Pacheco W.D. and 58 AF to the City of Dos Palos.

4/ Includes 57 AF to the City of Huron, 145 AF to the City of Avenal, 232 AF to the City of Coalinga,

3 AF Phase I Water, and 1 AF to Broadview W.D.

**Table 21. San Joaquin Field Division Plant Data**

(in acre-feet)

December 1996

Date	Coastal Aqueduct		California Aqueduct			
	Las Perillas Pumping Plant	Badger Hill Pumping Plant	Buena Vista Pumping Plant	Teerink Pumping Plant	Chrisman Pumping Plant	Edmonston Pumping Plant
1	0	0	1,165	1,264	1,230	1,309
2	0	0	531	553	504	491
3	49	50	1,111	1,099	1,067	1,034
4	54	62	910	953	867	906
5	78	78	637	649	604	573
6	53	53	0	0	0	0
7	52	59	0	0	0	55
8	60	60	210	0	0	3
9	37	48	1,050	944	913	952
10	0	0	1,522	1,417	1,406	1,336
11	32	36	1,790	1,753	1,729	1,721
12	0	0	1,420	1,438	1,463	1,448
13	0	0	1,475	1,461	1,474	1,473
14	0	0	1,160	1,174	1,140	1,036
15	0	0	1,260	1,349	1,314	1,309
16	0	0	1,160	1,044	1,088	1,009
17	0	0	1,417	1,362	1,354	1,345
18	0	0	1,637	1,611	1,587	1,584
19	0	0	1,208	1,183	1,159	1,176
20	0	0	1,545	1,389	1,333	1,337
21	57	57	1,395	1,356	1,338	1,260
22	4	12	942	1,021	1,004	1,036
23	83	85	939	891	834	791
24	17	18	630	652	643	657
25	0	0	1,260	1,349	1,385	1,309
26	0	0	736	718	697	711
27	21	34	1,713	1,610	1,598	1,552
28	2	2	899	948	918	900
29	40	40	476	521	464	491
30	12	12	580	622	606	600
31	39	41	1,125	1,020	937	954
Total	690	747	31,903	31,351	30,656	30,358

**Table 22a. Governor Edmund G. Brown California Aqueduct**

San Joaquin Field Division, Monthly Deliveries

(In acre-feet)

**December 1996**

Reach No.	Operating Pool		Turnout	Total Diversions	Deliveries					
	Beginning and Ending				Entitle-ment	DRWD Ag. Ent.	Transfer	USBR	Pump Back	
	No.	Structure	Mile							
7	21	Check No. 21	172.40	78,111						
8C	22			Empire West Side Irrig. Dist. TL - A	0	2,716	1	98	46	
				County of Kings TL - A	0					
				TLBWS D TL-A	2,716					
				175.18 DRWD - 1	1					
				180.64 TLBWS D - C	1					
				180.65 DRWD - SD	98					
				Dudley Ridge Water Dist. DRWD - 2	46					
				182.99 TLB WS D TL - B	2,470					
				184.63 Coastal Branch	690					
				Dudley Ridge Water Dist. DRWD - 3	0					
8D				Dudley Ridge Reach 8D Total:	145	145	0	0	0	
				Tulare Lake Basin WSD Total:	5,187	5,187	0	0	0	
31A		Check No. 22	184.82							
9	23			Kern County Water Agency Lost Hills Water Dist. - 1	430	430	1	0	0	
				Kern County Water Agency Lost Hills Water Dist. - 2	1					
				Kern County Water Agency Lost Hills Water Dist. - 3	0					
				Kern County Water Agency Berrenda Mesa - 2	0					
				Kern County Water Agency Lost Hills Water Dist. - 4	0					
				K.C.W.A. Reach 9 Subtotal:	431					
				Check No. 23	197.05					
				Kern County Water Agency Lost Hills Water Dist. - 7	45					
				Kern County Water Agency Lost Hills Water Dist. - 5	167					
				Kern County Water Agency Lost Hills Water Dist. - 6	0					
10A	24			Kern County Water Agency Lost Hills Water Dist. - 8	18	45	167	0	0	
				Check No. 24	207.94					
				Kern County Water Agency Belridge Water Storage Dist. - 1A	12					
				Kern National Wildlife Refuge USBR BV-1B	99					
					99					
	25			Kern County Water Agency Buena Vista WSD 1B	1,827	1,827	860	99	0	
				KCWA Semitropic WSD	860					
					0					
				USBR Total:	99					
				K.C.W.A. Reach 10A Subtotal:	2,929					

**Table 22b. Governor Edmund G. Brown California Aqueduct**

San Joaquin Field Division, Monthly Deliveries (Continued)

(In acre-feet)

**December 1996**

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending		Mile			Entitlement 1/	DRWD Ag. Ent.	Transfer	USBR	Pump Back		
	No.	Structure										
11B	25		210.75	Kern County Water Agency Belridge - 2	0	730	87					
			214.11	Kern County Water Agency Belridge - 3	0							
			216.62	Kern County Water Agency Belridge - 4	0							
				Kern County Water Agency Belridge - 5	730							
			217.13	Kern County Water Agency Belridge - 5D	87							
			Check No. 25	217.79								
				K.C.W.A. Reach 11B Subtotal:	817	817	0	0	0	0		
12D	26		219.58	Kern County Water Agency Belridge - 6	0	29,478	2,379					
		Check No. 26	224.92									
12E	27		230.37	Kern County Water Agency Buena Vista - 6	0							
			Check No. 27	231.73								
	28		235.75	Kern County Water Agency Buena Vista - 2	0							
				Kern County WA C.V.C.	31,857							
			238.04	Kern-Tulare W.D.	0							
				Tulare Co.	0							
				Lower Tule River	0							
				Fresno Co.	0							
				Pixley ID	0							
				Hacienda DWR Wells	0							
		Check No. 28	238.11									
				Arvin Edison Reach 12E Total:	0	0	0	0	0	0		
				K.C.W.A. Reach 12E Subtotal:	31,857	29,478	2,379	0	0	0		
13B	29		241.02	Kern River Intertie		393	2,884					
				KCWA Buena Vista WSD - 7	0							
			242.85	KCWA Buena Vista WSD - 5	393							
				Kern County Water Agency Buena Vista - 3	2,884							
			243.09	Buena Vista WSD	0							
			Check No. 29	244.54								
				Kern County Water Agency Buena Vista - 4	1,850							
	30		249.85	Buena Vista Pumping Plant	31,903	1,850						
			250.99	K.C.W.A. Reach 13B Subtotal:	5,127							
14A	31		254.47	Kern County Water Agency West Kern - 2	0	2						
			256.11	Kern County Water Agency Wheeler Ridge-Maricopa - 2	2							

1/ This water was delivered to the Kern Water Bank, on the Kern Fan Element property, for banking.

**Table 22c. Governor Edmund G. Brown California Aqueduct**

San Joaquin Field Division, Monthly Deliveries (Continued)

(In acre-feet)

**December 1996**

Reach No.	Operating Pool			Turnout	Total Diver-sions	Deliveries					
	Beginning and Ending		Structure			Entitle-ment	DRWD Ag. Ent.	Transfer	USBR	Pump Back	
	No.	Structure	Mile								
14A	31	Check No. 31	256.14			8					
	32		258.61	Kern County Water Agency Wheeler Ridge-Maricopa - 3	8						
			260.44	Kern County Water Agency Wheeler Ridge-Maricopa - 4	6						
		Check No. 32	261.72								
				K.C.W.A. Reach 14A Subtotal:	16	16	0	0	0	0	
14B	33		264.42	Kern County Water Agency Wheeler Ridge-Maricopa - 5	147	147					
			266.91	Kern County Water Agency Wheeler Ridge-Maricopa - 6	109						
		Check No. 33	267.36								
	34		270.24	Kern County Water Agency Wheeler Ridge-Maricopa - 7	272						
			271.27								
				Reach 14B Total:	528	528	0	0	0	0	
				Kern County Water Agency Wheeler Ridge-Maricopa - 8	335						
14C	35		272.39	Kern County Water Agency Wheeler Ridge-Maricopa - 9	1,070	335					
			276.09		1,070						
				Reach 14C Total:	1,405						
15A	36		Pumping Plant	278.13	31,351	4					
			279.02	Kern County Water Agency Wheeler Ridge-Maricopa - 9A	4						
			280.06	Kern County Water Agency Wheeler Ridge-Maricopa - 10	220						
				Reach 15-A Total:	224						
	Pumping Plant	280.36			30,656						
16A	37			Kern County Water Agency Wheeler Ridge-Maricopa - 11	0	130					
			282.06								
		Check No. 37	283.95								
	38		285.01	Kern County Water Agency Wheeler Ridge-Maricopa - 12	0						
			286.39	Kern County Water Agency Wheeler Ridge-Maricopa - 13A	0						
			287.06	Kern County Water Agency Wheeler Ridge-Maricopa - 13	0						
	Check No. 38	287.09									
	39		287.62	Kern County Water Agency Wheeler Ridge-Maricopa - 13B	0						
		Check No. 39	290.21								
	40		291.26	Kern County Water Agency Wheeler Ridge-Maricopa - 14	130						
			293.07	Kern County Water Agency Wheeler Ridge-Maricopa - 15	70						
				Kern County Water Agency TC-15	0						
				K.C.W.A. Reach 16A Subtotal:	200	200	0	0	0	0	
17E	Edmonston Pumping Plant	293.45			30,358						

**Table 23. Governor Edmund G. Brown California Aqueduct**

San Joaquin Field Division, Monthly Deliveries (Coastal Branch)

(In acre-feet)

**December 1996**

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries							
	Beginning and Ending					Entitlement 1/	DRWD Ag. Ent.	Interuptable Ent.	Trans.	Pump-back	1995 Water Bank		
	No.	Structure	Mile										
31A	C-1	Coastal Branch Control	0.02		690	601	0	0	0	0	0		
		Las Perillas Pumping Plant	1.16		690								
	C-2		3.79	Green Valley Water District	0								
		Badger Hill Pumping Plant	4.27		747								
	C-3	Coastal Check No. 3	7.21										
	C-4		9.34	Castaic Lake W.A. (Devil's Den W.D. #1)	0								
		Coastal Check No. 4	9.34										
	C-5	Coastal Check No. 5	12.20										
	C-6		13.30	Kern County Water Agency Berrenda Mesa - 3	0								
			14.83	Kern County Water Agency Berrenda Mesa - DD	0								
				Kern County Water Agency Berrenda Mesa - PO	601								
				K.C.W.A. Reach 31A Subtotal:	601	601	0	0	0	0	0		
				K.C.W.A. Total:	12,278	12,278	0	0	0	0	0		
33B		No. 1			0								

1/ This water was delivered to the Kern Water Bank, on the Kern Fan Element property, for banking.

**Table 24. Southern Field Division Plant Data**

(in acre-feet)

**December 1996**

Date	West Branch					East Branch				
	Oso Pumping Plant Pumping	Warne Powerplant Generation	Castaic Powerplant			Alamo Powerplant		Pearblossom Pumping Plant	Mojave Siphon Powerplant Generation	Devil Canyon Generation
			Generation		Pumpback	2/	Bypass	Generation	Pumping	
			Total	SWP 1/						
1	1,242	1,676	2,787	1,604	66	25	0	0	0	270
2	474	0	2,050	0	2,714	0	60	0	0	259
3	995	0	2,044	0	1,626	0	28	0	0	473
4	833	0	2,822	0	1,929	26	0	71	0	404
5	325	0	1,693	0	3,098	0	283	0	0	319
6	0	0	2,862	0	2,802	26	0	0	0	328
7	0	0	985	0	1,870	24	0	0	0	280
8	0	0	1,836	0	3,853	26	0	0	0	279
9	854	965	5,778	736	3,312	29	0	0	0	290
10	1,362	1,567	3,807	736	2,985	0	0	0	0	197
11	1,650	1,566	2,634	736	4,405	0	0	0	0	92
12	1,383	1,329	1,562	736	4,170	0	0	0	0	0
13	1,416	1,383	1,398	735	3,089	0	0	0	0	0
14	1,002	1,402	1,153	735	1,564	0	0	0	0	175
15	1,253	0	1,111	735	2,352	0	0	0	0	197
16	752	1,476	5,435	735	1,312	0	0	0	0	344
17	1,224	1,059	6,146	735	3,041	0	0	0	0	353
18	1,281	1,251	4,962	735	2,046	0	0	5	0	361
19	1,148	1,094	2,055	735	1,949	0	0	3	0	413
20	1,141	1,086	2,756	735	4,222	0	0	300	0	540
21	884	0	1,583	735	3,876	0	0	382	0	644
22	0	0	1,123	735	2,461	0	0	1,021	0	353
23	245	847	1,537	612	0	0	0	321	0	0
24	627	846	1,623	612	0	0	0	0	0	0
25	1,300	740	1,035	612	0	0	0	0	0	0
26	677	844	3,748	612	868	0	0	0	0	472
27	872	332	2,460	612	1,765	0	0	393	0	696
28	455	0	1,843	613	0	0	0	278	0	695
29	0	0	1,235	613	3,666	0	0	162	0	688
30	301	1,039	5,285	612	2,867	0	0	139	0	699
31	812	799	2,067	612	2,800	0	0	0	0	963
Total	24,508	21,301	79,415	17,408	70,708	156	371	3,075	0	10,784

1/ Scheduled amounts of water credited to SWP in Elderberry Forebay, subject to change.

2/ Not shown is 5,300 AF around Alamo through Cottonwood Chutes.

**Table 25. Pyramid Lake**

Daily Operation

Capacity: 171,200 ac-ft

(in acre-feet except as noted)

**December 1996**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow			Outflow			Computed Losses (-) Gains (+)
				Project		Natural	Project		Natural	
				Castaic Powerplant Pumpback	Warne Powerplant	Stream Flow	Castaic Powerplant Generation	Recreation Deliveries	To Piru Creek	
Nov 30	2562.37	150,494								
1	2561.38	149,315	-1,179	66	1,676	30	2,787	0	10	-154
2	2562.14	150,220	905	2,714	0	30	2,050	0	10	221
3	2561.75	149,755	-465	1,626	0	30	2,044	0	10	-67
4	2561.01	148,875	-880	1,929	0	29	2,822	0	10	-6
5	2562.31	150,422	1,547	3,098	0	29	1,693	0	10	123
6	2562.39	150,518	96	2,802	0	29	2,862	0	10	137
7	2563.23	151,523	1,005	1,870	0	29	985	0	10	101
8	2565.04	153,703	2,180	3,853	0	29	1,836	0	10	144
9	2563.92	152,352	-1,351	3,312	965	247	5,778	0	10	-87
10	2564.98	153,630	1,278	2,985	1,567	420	3,807	0	10	123
11	2568.84	158,344	4,714	4,405	1,566	489	2,634	0	10	898
12	2571.25	161,333	2,989	4,170	1,329	194	1,562	0	10	-1,132
13	2573.94	164,712	3,379	3,089	1,383	101	1,398	0	10	214
14	2575.38	166,541	1,829	1,564	1,402	66	1,153	0	10	-40
15	2576.37	167,805	1,264	2,352	0	53	1,111	0	10	-20
16	2574.29	165,156	-2,649	1,312	1,476	44	5,435	0	10	-36
17	2572.03	162,697	-2,459	3,041	1,059	42	6,146	0	10	-445
18	2570.95	160,959	-1,738	2,046	1,251	39	4,962	0	10	-102
19	2571.78	161,995	1,036	1,949	1,094	35	2,055	0	10	23
20	2573.71	164,422	2,427	4,222	1,086	35	2,756	0	10	-150
21	2575.67	166,910	2,488	3,876	0	33	1,583	0	10	172
22	2577.32	169,025	2,115	2,461	0	634	1,123	0	10	153
23	2577.15	168,806	-219	0	847	282	1,537	0	10	199
24	2576.58	168,074	-732	0	846	130	1,623	0	43	-42
25	2576.38	167,818	-256	0	740	81	1,035	0	50	8
26	2574.82	165,828	-1,990	868	844	66	3,748	0	50	30
27	2575.08	166,159	331	1,765	332	64	2,460	0	60	690
28	2573.58	164,528	-1,631	0	0	110	1,843	0	96	198
29	2575.51	166,706	2,178	3,666	0	90	1,235	0	99	-244
30	2574.21	165,054	-1,652	2,867	1,039	82	5,285	0	99	-256
31	2575.51	166,706	1,652	2,800	799	101	2,067	0	99	118
<b>TOTAL</b>				16,212	70,708	21,301	3,673	79,415	0	826
										771

**Table 26. Elderberry Forebay****Daily Operation**

(in acre-feet except as noted)

Capacity: 32,746 ac-ft

**December 1996**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow		Outflow			Computed Losses (-) Gains (+)	
				Castaic Powerplant Generation	Natural	Castaic Powerplant Pumpback	To Castaic Lake			
							Natural	Project		
Nov 30	1528.08	26,800								
1	1527.82	26,681	-119	2,787	2	66	2	2,737	-103	
2	1525.92	25,825	-856	2,050	2	2,714	2	0	-192	
3	1526.80	26,220	395	2,044	1	1,626	1	0	-23	
4	1528.40	26,946	726	2,822	1	1,929	1	0	-167	
5	1525.20	25,504	-1,442	1,693	1	3,098	1	0	-37	
6	1525.20	25,504	0	2,862	1	2,802	1	0	-60	
7	1522.90	24,491	-1,013	985	1	1,870	1	0	-128	
8	1518.11	22,442	-2,049	1,836	6	3,853	6	0	-32	
9	1524.40	25,150	2,708	5,778	39	3,312	39	0	242	
10	1525.80	25,771	621	3,807	53	2,985	53	0	-201	
11	1522.60	24,361	-1,410	2,634	112	4,405	112	0	361	
12	1516.40	21,733	-2,628	1,562	48	4,170	48	0	-20	
13	1512.00	19,961	-1,772	1,398	31	3,089	31	0	-81	
14	1511.50	19,767	-194	1,153	22	1,564	22	0	217	
15	1509.00	18,803	-964	1,111	18	2,352	18	0	277	
16	1518.40	22,564	3,761	5,435	16	1,312	16	0	-362	
17	1516.89	21,934	-630	6,146	13	3,041	13	3,487	-248	
18	1523.60	24,798	2,864	4,962	12	2,046	12	0	-52	
19	1523.50	24,754	-44	2,055	11	1,949	11	0	-150	
20	1516.39	21,728	-3,026	2,756	10	4,222	10	1,184	-376	
21	1510.41	19,342	-2,386	1,583	10	3,876	10	0	-93	
22	1507.91	18,388	-954	1,123	224	2,461	224	0	384	
23	1511.90	19,923	1,535	1,537	115	0	115	0	-2	
24	1508.78	18,718	-1,205	1,623	52	0	52	2,800	-28	
25	1511.50	19,766	1,048	1,035	39	0	39	0	13	
26	1518.40	22,564	2,798	3,748	35	868	35	0	-82	
27	1511.05	19,591	-2,973	2,460	50	1,765	50	3,570	-98	
28	1515.00	21,161	1,570	1,843	50	0	50	0	-273	
29	1509.50	18,993	-2,168	1,235	32	3,666	32	0	263	
30	1515.50	21,364	2,371	5,285	29	2,867	29	0	-47	
31	1509.30	18,916	-2,448	2,067	29	2,800	29	2,019	304	
TOTAL				-7,884	79,415	1,065	70,708	1,065	15,797	-794

**Table 27. Castaic Lake**

Daily Operation

(in acre-feet except as noted)

Capacity: 323,699 ac-ft

**December 1996**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow			Outflow		Computed Losses (-) Gains (+)	
				From Elderberry Forebay		Natural	Deliveries	Released To Castaic Lagoon		
				Natural	Project					
Nov 30	1498.04	287,087								
1	1499.09	289,279	2,192	2	2,737	4	645	0	94	
2	1498.74	288,547	-732	2	0	4	703	0	-35	
3	1498.40	287,837	-710	1	0	5	749	0	33	
4	1498.07	287,149	-688	1	0	5	665	0	-29	
5	1497.81	286,608	-541	1	0	5	647	0	100	
6	1497.49	285,943	-665	1	0	6	693	0	21	
7	1497.15	285,237	-706	1	0	6	651	0	-62	
8	1496.88	284,677	-560	6	0	6	649	0	77	
9	1496.65	284,201	-476	39	0	16	758	0	227	
10	1496.45	283,787	-414	53	0	73	687	0	147	
11	1496.30	283,477	-310	112	0	252	736	0	62	
12	1496.07	283,001	-476	48	0	84	510	0	-98	
13	1495.81	282,465	-536	31	0	34	558	0	-43	
14	1495.61	282,052	-413	22	0	19	537	0	83	
15	1495.27	281,352	-700	18	0	14	552	0	-180	
16	1495.06	280,920	-432	16	0	12	600	0	140	
17	1496.79	284,491	3,571	13	3,487	10	538	0	599	
18	1496.50	283,890	-601	12	0	9	614	0	-8	
19	1496.21	283,290	-600	11	0	9	565	0	-55	
20	1496.84	284,594	1,304	10	1,184	9	605	0	706	
21	1496.57	284,035	-559	10	0	8	572	0	-5	
22	1496.40	283,683	-352	224	0	154	513	0	-217	
23	1496.10	283,063	-620	115	0	77	602	0	-210	
24	1497.14	285,216	2,153	52	2,800	35	605	0	-129	
25	1496.85	284,615	-601	39	0	25	605	0	-60	
26	1496.59	284,076	-539	35	0	20	573	0	-21	
27	1498.21	287,441	3,365	50	3,570	38	459	0	166	
28	1498.10	287,212	-229	50	0	104	337	0	-46	
29	1497.97	286,941	-271	32	0	53	313	0	-43	
30	1497.82	286,629	-312	29	0	39	334	0	-46	
31	1498.65	288,359	1,730	29	2,019	31	350	0	1	
TOTAL				1,272	1,065	15,797	1,166	17,925	0	1,169

**Table 28. Governor Edmund G. Brown California Aqueduct**

Southern Field Division, Monthly Deliveries (West Branch)

(In acre-feet)

**December 1996**

Reach No.	Operating Pool		Turnout	Total Diver-sions	Deliveries					
	Beginning and Ending				Entitle-ment	Rec.	CLWA T1	Local In	14 B M & I	
	No.	Structure	Mile							
29A	42	Oso Pumping Plant	1.49		24,508					
29F	W2	Quail Lake	5.02	Antelope Valley-East Kern Water Agency	Re-moved					
		Quail Lake Embankment	7.82	Antelope Valley-East Kern Water Agency	Stub					
		Warne Power Plant	14.07		21,301					
29H	W3	Pyramid Lake		Calif. State Park Pyramid Recreation	0					
		Pyramid Dam	17.10	Piru Creek Fish Enhancement	0					
29J	W4	Castaic Power Plant	25.82		79,415					
		Elderberry Forebay								
		Elderberry Forebay Dam	28.12							
30 1/	W5	Castaic Lake		Calif. State Park Castaic Lake Recreation	9					
		Castaic Dam	31.47							
		Castaic Lake Outlet	31.55	MWD - 78"	17,304					
				MWD - 132"	1					
				CLWA - T1	512					
				Castaic Lake Water Agency	99					
				Ventura County Flood Control District	Stub					
				L.A. Co. Parks & Recreation	0					
				Releases to Lagoon	0					
				Reach 30 Subtotal:	17,925	18,428	9	-512	0	0
	W6	Castaic Lagoon		Recreation to Lagoon	71					
		Castaic Lagoon Outlet	31.87		62					

1/ Reach 30 actually terminates at mile 31.50. It is shown here as including the outlet works at mile 31.55.

All deliveries from the outlet works and from the Lagoon are billed to Reach 30.

**Table 29. Silverwood Lake**

Daily Operation

(in acre-feet except as noted)

Capacity: 74,970 ac-ft

**December 1996**

Date	Water Surface Elev. (in feet)	Storage	Storage Change	Inflow			Outflow				Del. To Mojave	Natural To Mojave	Computed Losses (-)	Las Flores Ranch Exchange Gains (+)	Las Flores Ranch Exchange 1/
				Mojave Siphon Power-plant	Project	Natural Stream Inflow	Delivered to CLAWA	Rec.	San Bernardino Tunnel						
Nov 30	3287.45	24,169													
1	3286.86	23,854	-315	0	0	3	0	0	270	0	0	-48	0		
2	3286.44	23,630	-224	0	0	3	0	0	259	0	0	32	0		
3	3285.65	23,213	-417	0	0	3	3	0	473	0	0	56	0		
4	3284.82	22,779	-434	0	0	3	4	0	404	0	0	-29	0		
5	3284.29	22,505	-274	0	0	3	5	0	319	0	1	48	0		
6	3283.72	22,212	-293	0	0	4	4	1	328	0	0	36	0		
7	3283.13	21,911	-301	0	0	3	3	0	280	0	0	-21	0		
8	3282.56	21,622	-289	0	0	3	2	0	279	0	0	-11	0		
9	3282.83	21,758	136	0	0	70	2	0	290	0	1	359	0		
10	3282.75	21,718	-40	0	0	207	6	0	197	0	58	14	0		
11	3282.62	21,652	-66	0	0	136	4	0	92	0	93	-13	0		
12	3282.83	21,758	106	0	0	69	3	0	0	0	44	84	0		
13	3282.93	21,809	51	0	0	42	3	0	0	0	0	12	0		
14	3282.85	21,769	-40	0	0	29	4	0	175	0	0	110	0		
15	3282.36	21,521	-248	0	0	21	3	1	197	0	1	-67	0		
16	3281.85	21,265	-256	0	0	17	3	0	344	0	0	74	0		
17	3281.10	20,892	-373	0	0	14	4	0	353	0	0	-30	0		
18	3280.46	20,576	-316	0	0	12	3	0	361	0	1	37	0		
19	3279.60	20,155	-421	0	0	11	0	0	413	0	0	-19	0		
20	3278.60	19,672	-483	0	0	11	6	0	540	0	0	52	0		
21	3277.16	18,987	-685	0	0	14	0	0	644	0	1	-54	0		
22	3276.30	18,584	-403	0	0	494	0	0	353	0	53	-491	0		
23	3275.91	18,403	-181	0	0	154	7	0	0	0	162	-166	0		
24	3278.48	19,615	1,212	0	0	72	1	0	0	0	132	1,273	0		
25	3278.40	19,576	-39	0	0	52	0	0	0	0	75	-16	0		
26	3277.39	19,096	-480	0	0	40	0	0	472	0	133	85	0		
27	3275.41	18,172	-924	0	0	49	3	0	696	0	199	-75	0		
28	3273.74	17,411	-761	0	12	81	3	0	695	0	193	37	0		
29	3271.91	16,596	-815	0	18	51	3	0	688	0	191	-2	0		
30	3270.28	15,886	-710	0	18	41	3	0	699	0	108	41	5		
31	3268.14	14,977	-909	0	10	35	0	0	963	0	23	32	10		
<b>TOTAL</b>				-9,192	0	58	1,747	82	2	10,784	0	1,469	1,340	15	

1/ Project water delivered from Mojave Siphon in exchange for like amount of Natural Streamflow.

**Table 30. Lake Perris**

Daily Operation

(in acre-feet except as noted)

Capacity: 131,452 ac-ft

**December 1996**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow 1/	Outflow	Computed Losses (-) Gains (+) 1/
Nov 30	1587.37	125,400				
1	1587.33	125,309	-91		11	
2	1587.33	125,309	0		12	
3	1587.32	125,286	-23		11	
4	1587.32	125,286	0		11	
5	1587.32	125,286	0		10	
6	1587.30	125,240	-46		11	
7	1587.30	125,240	0		11	
8	1587.30	125,240	0		12	
9	1587.34	125,332	92		12	
10	1587.34	125,332	0		11	
11	1587.34	125,332	0		11	
12	1587.34	125,332	0		11	
13	1587.33	125,309	-23		10	
14	1587.32	125,286	-23		11	
15	1587.27	125,172	-114		11	
16	1587.25	125,126	-46		11	
17	1587.25	125,126	0		12	
18	1587.25	125,126	0		11	
19	1587.24	125,103	-23		11	
20	1587.22	125,058	-45		9	
21	1587.21	125,035	-23		12	
22	1587.21	125,035	0		11	
23	1587.21	125,035	0		10	
24	1587.21	125,035	0		10	
25	1587.20	125,012	-23		11	
26	1587.17	124,944	-68		11	
27	1587.16	124,921	-23		12	
28	1587.17	124,944	23		12	
29	1587.15	124,898	-46		12	
30	1587.13	124,852	-46		12	
31	1587.15	124,898	46		12	
<b>TOTAL</b>			<b>-502</b>	<b>0</b>	<b>345</b>	<b>-157</b>

1/ Readings are not taken on a daily basis. End of month only.

**Table 31a. Governor Edmund G. Brown California Aqueduct**

Southern Field Division, Monthly Deliveries (East Branch)

(In acre-feet)

**December 1996**

Reach No.	Operating Pool		Turnout	Total Diver-sions	Deliveries					
	Beginning and Ending				Entitle-ment	Rec.	Transfer 1/	CLWA T1	Local Out	
	No.	Structure	Mile							
17E	40	Edmonston Pumping Plant	293.45							
	41		298.65	Kern County Water Agency Tej.-Cas						
17F		Check No. 41	303.41							
18A	42	Check No. 42	304.99							
19	43	Alamo Powerplant	305.73	(includes 5,300 AF flow down Cottonwood Chutes)				2		
		Check No. 43	309.70							
	44		311.84	LADWP Connection			0			
			313.50	AVEK 245th Street West						
	45	Check No. 44	314.81				2			
			314.93	AVEK 235th Street West						
	46		315.57	Avek 225th Street West			0			
		Check No. 45	319.74							
	47		323.19	Antelope Valley-East Kern WA Fairmont			365			
		Check No. 46	323.84							
				Reach 19 Total:	367		367	0	0	
20A	48	Check No. 47	326.77							
			326.91	Antelope Valley-East Kern WA Willow Springs Siphon		15	15			
			329.65	Antelope Valley-East Kern WA 120th Street West						
	49	Check No. 48	330.82							
	50	Check No. 49	335.93							
20B	51		336.73	AVEK WA - Quartz hill (Wheeled for Palmdale WD)		12	12			
		Check No. 50	341.51							
		Check No. 51	342.07							
	52		342.80	Antelope Valley-East Kern WA 30th Street West		Not in Use	43			
		Check No. 52	343.74							
	53		346.98	PWD Palmdale		421	421			
			348.14	Antelope Valley-East Kern WA Acton Treatment Plant						
21	54	Check No. 53	348.17							
	55	Check No. 54	350.25							
	56	Check No. 55	352.70							
	57	Check No. 56	354.76							
22A			354.97	Littlerock Creek I.D.		0	194			
	58	Check No. 57	356.93							
22B			357.72	Antelope Valley-East Kern WA 96th Street East		0	194			
			359.82	Antelope Valley-East Kern WA East Side Treatment Plant						

1/ Transferred from Mojave Water Agency to A.V.E.K.

**Table 31b. Governor Edmund G. Brown California Aqueduct**

Southern Field Division, Monthly Deliveries (East Branch, Continued)

(In acre-feet)

**December 1996**

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries					
	Beginning and Ending		Structure			Entitlement	Recreation	Transfer	CLWA T1	Local Out	
	No.	Structure	Mile								
22B	58	Pearblossom Pumping Plant	360.61		3,075	687					
	59	Check No. 59	366.09								
	60	Check No. 60	373.94								
	61	Check No. 61	379.00								
	62	Check No. 62	384.26								
	63	Check No. 63	389.50								
	64	Check No. 64	395.10								
	65	Check No. 65	400.32								
	66		401.10	Mojave Water Agency							
				Morongo 24" and 42"	687						
23	Check No. 66	403.41		Mojave Water Agency	0	15					
	Mojave Siphon	405.48		Las Flores Ranch	15						
24	Mojave Siphon Powerplant	405.65			0						
	67	Silverwood Lake	407.65	Crestline Lake Arrowhead Water Agency	82						
				Calif. State Park Silverwood Agency (Rec.)	2						
25	San Bernardino Tunnel	411.46			10,346	2					
				San Gorgonio Pass Water Agency	0						
26A	Devil Canyon Powerplant	412.73			10,346						
	68	Devil Canyon Afterbay Control Structures	412.88	MWD-SC Rialto	8,320						
				Desert Water Agency (MWD Wheeling Exchange)	0						
				San Gabriel Valley Water District	0						
				Coachella Valley W.D. (MWD Wheeling Exchange)	0						
				San Bernardino Valley Metropolitan Water District	81						
				MWD (SBVMWD Exchange)	0						
28G	69	Santa Ana Valley Pipeline	425.46			81					
28H			433.06	MWD-SC Box Springs	2,331						
			440.05	MWD-SC Perris Bypass Pipeline	0						
28J		Lake Perris	442.00	MWD-SC 18"	337						
				MWD-SC 54"	0						
				MWD-SC 78"	0						
				Calif. State Park Lake Perris Recreation	8						
				MWD Total:	28,293		8				
					28,805	0	0	-512	0		

**Table 32. Water Quality At Selected SWP Locations**

December 1996

Constituent	Units	Thermalito Afterbay At Outlet	North Bay Aqueduct Barker Slough Pumping Plant	Banks Delta Pumping Plant	Delta Mendota Canal At McCabe Rd.	California Aqueduct				Devil Canyon Afterbay Near San Bernardino
						O'Neill Forebay Outlet (Check 13)	Kettleman City (Check 21)	Near Hwy 119 (Check 29)	Tehachpi Afterbay (Check 41)	
Alkalinity	mg/l	39	110	56	45	58	76	78	72	79
Arsenic	mg/l	<0.001	0.002	0.001	0.001	0.001	0.002	0.002	0.002	0.001
Boron	mg/l	<0.1	0.3	0.1	0.1	0.1	0.2	0.2	0.1	0.1
Bromide	mg/l	NR	0.05	0.14	0.05	0.14	NR	NR	0.17	0.13
Calcium	mg/l	8	18	14	11	14	19	20	17	18
Carbon - Total Organic	mg/l	NR	11	7	5	6	NR	NR	3	3
Chloride	mg/l	1	39	45	17	47	76	69	58	36
Chromium	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Flouride	mg/l	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Hardness	mg/l	32	119	68	48	68	97	100	84	82
Iron	mg/l	0.013	0.066	0.048	0.051	0.045	0.026	0.012	<0.005	<0.005
Lead	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Magnesium	mg/l	3	18	8	5	8	12	12	10	9
Manganese	mg/l	<0.005	0.023	0.022	0.005	0.011	<0.005	<0.005	<0.005	0.055
Nitrate + Nitrite	mg/l	0.07	0.52	0.67	NR	NR	NR	NR	0.62	0.49
Phosphorus-Ortho	mg/l	<0.01	0.10	0.12	NR	NR	NR	NR	0.06	0.04
Phosphorus-Total	mg/l	<0.01	0.20	0.17	NR	NR	NR	NR	0.08	0.08
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Sodium	mg/l	3	41	33	18	34	58	54	40	28
Specific Conductance	µS/cm	80	424	319	196	330	522	490	392	321
Sulfate	mg/l	2	40	24	18	26	36	39	29	24
Total Dissolved Solids	mg/l	54	250	182	127	198	279	266	215	178
Trihalomethane Formation Potential	µg/l	NR	885	508	439	423	NR	316	276	264
Zinc	mg/l	<0.005	<0.005	0.006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

µg/l micrograms per liter

µS/cm microSiemens per centimeter

NR - Not Reported

**Table 33. Water Quality At Selected Delta Stations**

**December 1996**

Date	Tides		Flow In CFS			Electrical Conductivity in millisiemens								Cl in mg/l		
	(Antioch) Daily Mean		Net Delta Outflow Index		Rio Vista	Antioch	Chippis Island		Emmaton		Jersey Point		Clifton Court Forebay	Cache Slough	Contra Costa Canal	Delta Mendota Canal
	Hl	HALF	md	30dm	md	md	md	28dm	md	14dm	md	14dm	md	md	md	md
1	1.88	0.47	8394c	N.R.	13450	1.48	4.49	0.00	0.35	0.66	0.95	1.16	N.R.	20	129	75
2	1.65	0.13	9062c	N.R.	12498	1.36	3.89	0.00	0.31	0.60	0.86	1.14	0.48e	21	129	80
3	1.97	0.21	8557c	N.R.	12139	1.33	4.3	0.00	0.31	0.53	0.87	1.11	0.49	23	131	81
4	2.07	0.28	9130c	N.R.	11736	1.18	4.81	0.00	0.32	0.48	0.85	1.09	0.48	24	130	84
5	2.76	0.81	10161c	N.R.	13283	1.6	6.59	0.00	0.33	0.44	0.89	1.07	0.50	24	130	84
6	3.05	0.85	20222c	N.R.	18485	1.37	5.62	0.00	0.30	0.38	0.85	1.02	0.49	20	124	83
7	3.21	0.98	38477c	N.R.	34246	1.27	4.03	0.00	0.26	0.36	0.80	0.98	0.45	20	113	68
8	3.49	1.23	40987c	N.R.	36121	1.12	3.13	0.00	0.19	0.34	0.75	0.95	0.41	N.R.	128	60
9	4.12	1.69	40514c	N.R.	35163	0.96	2.77	0.00	0.20	0.32	0.72	0.92	0.41	N.R.	112	54
10	4.57	2.15	40903c	N.R.	34027	0.88	2.37	0.00	0.21	0.31	0.67	0.88	0.39	21	117	48
11	4.17	1.80	52678c	19217	38860	0.72	1.16	0.00	0.26	0.30	0.56	0.85	0.34	27	123	44
12	4.03	1.78	59045c	20810	44841	0.66	0.63	0.00	0.22	0.28	0.48	0.80	0.34	34	126	39
13	3.69	1.70	84076c	23244	53527	0.58	0.49	0.00	0.17	0.27	0.39	0.76	0.34	38	121	39
14	3.14	1.38	110100c	26461	75654	0.43	0.40	0.00	0.15	0.26	0.30	0.71	0.24	41	116	35
15	2.64	1.21	127332c	30063	105179	0.33	0.32	0.00	0.13	0.24	0.26	0.66	0.31	42	118	29
16	2.89	1.15	119711c	33154	99832	0.29	0.25	0.00	0.13	0.23	0.24	0.62	0.24	44	115	25
17	3.22	1.23	114016c	35850	90951	0.26	0.21	0.00	0.13	0.22	0.23	0.57	0.22	44	113	26
18	3.15	1.07	101130c	38784	78022	0.23	0.18	0.00	0.13	0.20	0.22	0.53	0.18	45	111	24
19	3.40	1.22	88086c	67615	65771	0.22	0.15	0.00	0.13	0.19	0.20	0.48	0.17	47	110	22
20	3.64	1.38	81354c	69779	59775	0.2	0.14	0.00	0.13	0.18	0.20	0.43	0.17	48	108	22
21	4.35	2.06	76280c	71750	57224	0.2	0.13	0.00	N.R.	0.17	0.20	0.39	0.17	49	100	23
22	4.82	2.42	88553c	74156	57637	0.19	0.12	0.00	N.R.	0.17	0.20	0.35	0.17	49	95	26
23	3.95	1.55	102544c	77130	61948	0.19	0.14	0.00	N.R.	N.R.	0.20	0.31	0.18	50	97	28
24	3.57	1.55	105302c	80111	65029	0.20	0.14	0.00	N.R.	N.R.	0.20	0.28	0.18	51	95	36
25	3.69	1.67	105559c	83121	63447	0.19	0.13	0.00	0.14	N.R.	0.20	0.25	0.17	51	97	31
26	3.91	2.01	100378c	85916	60197	0.19	0.13	0.00	0.14	N.R.	0.20	0.23	0.16	51	97	27
27	3.92	2.21	87612c	88422	53749	0.19	0.13	0.00	0.14	N.R.	0.20	0.22	0.16	51	90	26
28	3.38	1.98	89142c	91041	58442	0.20	0.13	0.00	0.14	N.R.	0.20	0.21	0.17	52	88	27
29	3.95	2.34	103602c	94173	71234	0.19	0.13	0.00	0.14	N.R.	0.21	0.21	0.19	52	92	29
30	3.58	2.42	113957c	97654	80475	0.21	0.13	0.00	0.12	N.R.	0.20	0.20	0.19	53	81	29
31	3.78	2.48	188810c	103668	148984	0.19	0.13	0.00	0.12	N.R.	0.20	0.20	0.18	55	76	28

Clifton Court Cl(mg/l)=200X EC - 25

e = Estimated

N.R. = No Record.

c = Excess Delta conditions.

f = Excess Delta conditions with fish concerns.

s = Balanced water conditions with storage withdrawals.

b = Balanced water conditions with no storage withdrawals.

r = Excess delta conditions with exports/inflow ratio concerns.

**Table 34. Pesticides, Herbicides, and Other Organic Substances Detected In The SWP 1/**

Sampling Location	Sample Date	Chemical Detected	Concentration µg/l 2/	December 1996
North Bay Aqueduct At Barker Slough Pumping Plant	September 18, 1996	None Detected		
California Aqueduct At Banks Delta Pumping Plant	September 18, 1996	2,4, -D	0.33	
Delta Mendota Canal At McCabe Road	September 18, 1996	2,4, -D	0.29	
California Aqueduct Near Kettleman City (Check 21)	September 18, 1996	Simazine 2,4, -D	0.13 0.15	
California Aqueduct At Tehachapi Afterbay (Check 41)	September 18, 1996	Simazine 2,4, -D	0.02 0.33	
Devil Canyon Power Plant At Entrance To Santa Ana Pipeline	September 18, 1996	Simazine 2,4, -D	0.05 0.15	

1/ Locations are normally sampled during March, June, and September. Monthly reports will include data for the month in which samples were most recently taken.

2/ Micrograms per liter.

**Table 35. Oroville and Delta Field Divisions Energy Data**

(in kWh)

**December 1996**

Date	Oroville Thermalito Complex		Barker Slough Pumping Plant	Cordelia Pumping Plant	Banks Pumping Plant		South Bay Pumping Plant	Del Valle Pumping Plant
			Load	Load	Total Load	SWP Load 1/		
	Generation	Load	Load	Load	Load	Load	Load	Load
1	47,808	417,312	9,408	20,195	3,552,192	3,552,192	80,820	7,378
2	6,429,600	7,488	9,674	20,216	2,929,248	2,929,248	50,010	7,433
3	8,090,496	3,168	9,065	20,209	2,729,952	2,729,952	76,170	7,478
4	7,182,432	5,472	7,126	15,519	3,025,440	3,025,440	142,400	2,198
5	7,840,800	4,032	7,566	18,141	2,968,992	2,968,992	160,840	205
6	8,630,208	122,976	9,562	23,107	3,539,232	3,539,232	168,410	259
7	2,423,520	531,936	8,274	17,906	3,573,216	3,573,216	170,850	238
8	2,392,992	1,290,528	7,868	16,800	3,548,160	3,548,160	145,610	231
9	10,643,328	288	9,688	22,435	3,552,768	3,552,768	153,150	1,973
10	13,502,304	653,184	7,945	16,387	3,399,840	3,399,840	173,570	1,915
11	18,765,504	0	8,750	20,188	1,208,448	1,208,448	171,850	1,516
12	19,140,192	0	7,658	16,688	3,372,768	909,768	158,140	1,516
13	18,722,592	0	8,393	20,223	3,622,176	889,176	163,750	1,517
14	19,052,064	0	9,058	19,726	3,189,888	708,888	148,490	1,525
15	19,102,176	0	7,973	17,843	3,547,008	-52,992	147,770	1,537
16	18,921,600	0	7,168	15,400	3,166,272	685,272	161,580	675
17	18,303,840	0	6,405	13,517	1,209,600	1,209,600	149,580	254
18	18,438,912	0	11,326	26,250	464,544	464,544	168,190	255
19	18,418,176	0	11,907	24,668	13,536	13,536	166,870	261
20	18,567,936	0	10,584	22,876	213,408	213,408	168,224	262
21	18,328,896	0	9,891	22,981	1,193,184	1,193,184	170,470	259
22	18,332,352	0	10,927	27,111	1,664,064	1,664,064	150,830	259
23	17,781,984	0	9,513	22,911	687,168	687,168	134,526	259
24	14,960,736	0	7,434	16,744	1,035,072	1,035,072	96,380	258
25	12,142,656	288	5,390	11,158	605,664	605,664	87,142	252
26	13,924,800	288	8,582	22,918	512,640	512,640	134,426	267
27	18,619,200	0	8,617	20,237	415,008	415,008	141,540	275
28	17,885,664	0	7,329	16,590	12,384	12,384	150,392	259
29	17,034,912	0	8,652	17,654	306,144	306,144	95,960	250
30	17,222,976	0	7,287	17,899	409,824	409,824	134,388	251
31	11,380,032	0	6,671	15,393	12,096	12,096	102,416	244
Total	432,230,688	3,036,960	265,691	599,890	59,679,936	45,921,936	4,324,744	41,459

1/ Negative values that appear in SWP columns indicate a mismatch of scheduled CVP energy and actual pumping;

adjustments to SWP water shares are made to balance the mismatch.

**Table 36. San Luis Field Division Energy Data**

(in kWh)

**December 1996**

Date	Dos Amigos Pumping Plant		Gianelli Pumping-Generating Plant			
	Total Load	SWP Load 1/	Total Generation	SWP Generation 1/	Total Load	SWP Load 1/
1	630,864	630,864	0	0	6,918,624	2,334,624
2	574,992	574,992	0	0	4,421,952	2,702,952
3	540,288	450,288	0	0	3,723,552	2,004,552
4	519,264	429,264	0	0	3,872,160	2,153,160
5	448,560	358,560	0	0	3,696,192	1,977,192
6	356,688	266,688	0	0	4,359,744	2,226,744
7	362,016	272,016	0	0	5,433,984	3,714,984
8	512,496	422,496	0	0	8,913,600	4,329,600
9	584,640	494,640	0	0	4,100,256	2,381,256
10	656,064	566,064	0	0	4,359,168	2,703,168
11	572,976	482,976	0	0	2,978,496	62,496
12	518,832	428,832	0	0	6,752,448	-43,552
13	497,376	407,376	0	0	6,152,832	5,832
14	463,824	373,824	0	0	5,513,184	-16,816
15	482,256	392,256	0	0	7,041,600	-44,400
16	791,856	701,856	0	0	5,356,512	-61,488
17	607,392	517,392	0	0	2,380,608	-11,392
18	593,440	503,440	536,544	536,544	2,729,952	-14,048
19	605,664	515,664	1,956,096	1,956,096	2,972,736	-119,264
20	749,088	596,088	724,608	724,608	3,665,088	1,150,088
21	552,240	399,240	0	0	2,536,704	-5,296
22	403,056	250,056	0	0	4,420,800	-43,200
23	438,912	285,912	0	0	1,659,744	-14,256
24	471,456	318,456	0	0	1,650,528	16,528
25	410,544	257,544	0	0	4,413,312	-50,688
26	300,816	155,816	0	0	1,859,040	35,040
27	330,912	213,912	0	0	1,192,896	16,896
28	264,816	111,816	0	0	2,693,088	-39,912
29	289,152	136,152	0	0	3,933,216	-35,784
30	346,320	193,320	0	0	2,331,936	-6,064
31	448,416	295,416	0	0	2,571,840	-5,160
Total	15,325,216	12,003,216	3,217,248	3,217,248	124,605,792	27,303,792

1/ Negative values may appear in SWP columns and indicate a mismatch of scheduled CVP energy and actual pumping; adjustments to SWP water shares are made to balance the mismatch.

**Table 37. San Joaquin Field Division Energy Data**

(in kWh)

**December 1996**

Date	Las Perillas Pumping Plant Load	Badger Hill Pumping Plant Load	Buena Vista Pumping Plant Load	Teerink Pumping Plant Load	Chrisman Pumping Plant Load	Edmonston Pumping Plant Load
1	1,018	808	282,528	338,832	821,376	2,963,520
2	1,034	832	133,920	154,224	341,280	1,136,880
3	3,468	9,104	277,776	294,840	671,616	2,345,220
4	4,450	10,912	232,632	255,024	554,688	2,057,760
5	6,064	13,616	164,592	182,448	389,088	1,318,320
6	4,442	9,568	7,920	8,568	20,448	43,200
7	4,326	10,512	7,272	8,424	20,736	164,160
8	4,874	11,040	57,960	8,064	21,024	45,360
9	3,424	8,360	259,416	254,520	572,832	2,157,840
10	1,028	840	378,576	378,072	854,208	3,012,480
11	3,038	6,216	441,288	469,152	1,045,728	3,868,560
12	1,026	840	354,240	390,240	898,272	3,263,040
13	998	840	364,752	394,272	890,496	3,329,280
14	1,006	824	288,072	313,848	701,856	2,353,680
15	1,034	824	310,320	379,296	808,704	2,964,240
16	1,026	824	284,904	292,176	680,832	2,345,040
17	1,024	832	367,992	368,496	830,016	3,013,920
18	1,026	816	407,232	432,144	1,006,848	3,548,160
19	1,038	824	306,288	322,776	740,160	2,648,880
20	988	824	388,728	377,712	825,984	3,016,800
21	4,632	9,424	348,912	365,904	832,608	2,896,560
22	1,256	2,696	238,248	280,512	637,920	2,375,280
23	6,334	13,768	241,992	244,800	528,480	1,814,400
24	2,164	3,496	165,384	183,888	401,760	1,512,000
25	1,106	808	327,528	365,256	843,552	2,980,080
26	1,156	808	193,608	198,720	438,048	1,624,320
27	2,528	6,312	421,848	433,224	984,960	3,492,000
28	1,212	1,120	227,520	259,920	587,808	2,054,880
29	3,740	7,360	121,464	147,528	326,880	1,138,320
30	1,870	2,880	148,968	174,960	400,608	1,385,280
31	3,552	7,024	285,048	279,648	599,904	2,174,400
TOTAL	75,882	144,952	8,036,928	8,557,488	19,278,720	69,043,860

**Table 38. Southern Field Division Energy Data**

(in kWh)

**December 1996**

Date	West Branch			East Branch			
	Oso Pumping Plant Load	Warne Powerplant Generation	Castaic Powerplant SWP Generation	Alamo Powerplant Generation	Pearblossom Pumping Plant Load	Mojave Siphon Powerplant Generation	Devil Canyon Powerplant Generation
1	342,048	995,832	1,560,000	0	14,940	0	303,744
2	141,960	0	0	3,108	16,128	0	293,952
3	270,312	0	0	112	16,296	0	560,832
4	227,528	0	0	0	61,536	0	463,200
5	105,840	0	0	27,664	13,212	0	357,984
6	9,632	0	0	0	13,416	0	369,984
7	9,352	0	0	0	11,928	0	313,536
8	9,632	0	0	0	11,796	0	307,392
9	230,272	595,224	720,000	0	12,384	0	326,016
10	363,944	902,160	720,000	0	15,096	0	210,624
11	442,008	913,392	720,000	0	14,160	0	82,752
12	373,744	823,392	720,000	0	14,004	0	0
13	384,104	832,248	720,000	0	14,388	0	0
14	273,112	837,144	720,000	0	14,280	0	134,784
15	342,048	0	720,000	0	15,000	0	203,904
16	202,440	863,064	720,000	0	15,564	0	381,504
17	325,472	658,080	720,000	0	15,312	0	400,320
18	343,336	746,424	720,000	0	18,492	0	412,800
19	302,848	657,864	720,000	0	17,088	0	474,240
20	302,568	658,296	720,000	0	217,164	0	633,024
21	250,320	0	720,000	0	274,584	0	753,792
22	11,424	0	720,000	0	694,164	0	404,928
23	51,184	516,600	600,000	0	227,316	0	0
24	180,600	514,368	600,000	0	16,260	0	0
25	348,936	450,504	600,000	0	15,780	0	0
26	190,064	516,312	600,000	0	15,672	0	487,680
27	233,072	513,432	600,000	0	279,864	0	917,760
28	137,648	0	600,000	0	199,500	0	817,344
29	10,864	0	600,000	0	122,112	0	810,816
30	82,656	609,984	600,000	0	107,856	0	821,568
31	230,664	484,992	600,000	0	14,304	0	1,081,824
Total	6,729,632	13,089,312	17,040,000	30,884	2,509,596	0	12,326,304